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PRINCIPAL SUPPORT OF TEACHER PSYCHOLOGICAL NEEDS:
THE CONCEPTUALIZATION AND MEASUREMENT OF A NEW CONSTRUCT

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BY

_____
Dr. Patrick B. Forsyth, Co-Chair

_____
Dr. Timothy G. Ford, Co-Chair

_____
Dr. Curt M. Adams

_____
Dr. Beverly Edwards

_____
Dr. Chan Hellman

To my beloved grandmother, Janet Linann Heath…

While you passed before I could complete this chapter, your never-ending love and support I will forever cherish.

And to my brother, Jackson…

May your life be an inspiration to all who experience your wonder.

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Abstract

There is a lack of evidence explaining the generative process by which intentional leader behavior might promote changes in the social-psychological well-being of teachers toward improved principal-teacher relationships. Addressing persistent educational problems, like teacher job satisfaction, commitment, or turnover, may be as simple as changing how principals talk to and with teachers. Still, no clear framework exists to study the nature of generative principal-teacher interactions. This study advances Principal Support of Teacher Psychological Needs (PSTPN) as a tool to globally measure teacher perception of principal-teacher interactions, namely conversations, which have the potential to ignite teacher personal and professional well-being, motivation, and development. The purpose of this study is to establish the foundation for a line of inquiry around PSTPN by (1) situating PSTPN within the broader leadership literature, (2) describing the role of conversation as a core and defining component of school leadership, (3) conceptualizing PSTPN by utilizing organizational conversation and self-determination theory, (4) developing PSTPN as a measurable construct, (5) empirically testing the validity and reliability of the PSTPN scale, and finally (6) providing initial evidence of the viability of PSTPN by examining the relationship of PSTPN with conditions that facilitate leader effectiveness.

Chapter 1: Introduction

There exists today an impressive body of empirical research on organizational leadership. There is no paucity of studies conceptualizing leadership (Stogdill, 1948, 1974; Mann 1959; Fleishman et al., 1991; Bass, 2010), debating the differences between leadership and management (Zaleznik, 1977; Kotter, 1990b; Rost, 1991; Yukl, 2010) or distinguishing transactional leadership from transformational leadership (Burns, 1978; Bass, 1985; Bass & Avolio, 1994; Yukl, 1998). Within each decade, different definitions and concepts of leadership have emerged, resulting in countless research articles, discussions, and an extensive body of applicable knowledge on the topic (Church, 1998).

In fact, after conducting an analysis of the empirical leadership literature from 1940 to 1986, Fleishman, Mumford and colleagues (1991) identified 65 systems for classifying definitions of leadership. In a similar fashion, after reviewing more than 20 years of leadership theory and research, Stogdill (1974) noted that there are "almost as many different definitions of leadership as there are persons who have attempted to define the concept" (p. 7). Case in point, Rost (1993) found 221 definitions of leadership in examination of 587 publications. To put it simply, leadership is important and relevant to almost every sector of human organization. Indeed, the abundance of research and attention given to the topic is a testament to its salience.

Within the field of education, the amount of empirical research concerning school leadership is equally as profuse. Educational practitioners and scholars alike have at their disposal a plethora of empirical studies advancing the concepts of school-level transformational leadership (Firestone & Louis, 1999; Leithwood & Jantzi, 1999,

2006; Sagor & Barnett, 1994; Leithwood, Tomlinson, & Genge, 1996; Silins, Mulford, Zarins, & Bishop, 2000), shared instructional leadership (Cuban, 1984; Murphy & Hallinger, 1987; Hallinger & Leithwood, 1998; Blase and Blase, 1999; Marks & Printy, 2003), school leadership dimensions (Robinson, 2002; Robinson, Hohepa, & Lloyd, 2009), school leadership pathways (Leithwood, Patten, & Jantzi, 2010), ect. Many of these prominent leadership conceptualizations emphasize the importance of the role of the school leader in shaping school culture (Firestone & Louis, 1999; Leithwood & Jantzi, 1990; 1999; Hallinger & Heck, 2002), introducing innovation into the workplace (Conley & Goldman, 1994; Leithwood, 1994), promoting collaborative work structures (Poole, 1995; Blase & Blase, 1999; Marks & Printy, 2003), and creating school conditions capable of improving teacher professionalism and learning (Geijsel, Sleegers, Leithwood & Jantzi, 2003; Geijel, Sleegers, Stoel, & Krüger, 2009; Printy, 2008; Tschannen-Moran, 2009). However, these conceptualizations are often limited in their practical implementation in that they fail to fully recognize and explain the potential of effective principal-teacher relationships in accomplishing the work being done in schools. In fact, they are often void of a clear theoretical explanation of the underlying mechanisms through which school leaders effectively exercise their influence in relation to teachers.

Statement of the Problem

It is established empirically that the effects of school leadership on student outcomes are indirect, with school leaders working primarily through teachers to influence student learning and school effectiveness (Hargreaves & Fink, 2012; Seashore Louis, Leithwood, Wahlstrom, & Anderson, 2010, Hallinger & Heck, 1996). Hart

(1993) reinforces this idea contending that leaders, especially in professional workplaces like schools, do their work though others. Due to the rising amount of public and political pressure on school leaders to increase student performance, many educational leadership studies continue to focus on the effects of school leaders on student learning and achievement outcomes (Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003; Halligner & Heck, 1998; Hallinger, 2003) while failing to address the important relational link between principals and teachers in achieving these outcomes.

The focus of educational research must now shift towards identifying significant leadership mediators which explain more definitively how school leaders exercise their influence through teachers in accomplishing the outcomes of schooling. To this end, a few empirical studies have attempted to identify significant leadership mediators (Bryk & Schneider, 2002; Hoy, Tarter, & Hoy, 2006; Leithwood, Louis, Anderson, Wahlstrom, 2004; Silins & Mulford, 2002). However, upon review, the findings are quite general in nature and too complex for direct use in practice (Leithwood et al., 2010). While these studies are useful for identifying important school-leadership variables hypothesized to influence student learning (i.e. the significance of relational trust, academic optimism, professional learning communities, setting direction, developing people, ect.), they lack the specification of explicit mechanisms grounded in theory by which school leaders can work through teachers to influence student outcomes. In review of this literature, Leithwood and colleagues make a telling observation; “Such approaches to the identification of powerful leadership mediators

provide little guidance to practicing leaders who, just like researchers, are in the business of deciding where best to focus their efforts" (p. 673).

Researchers have responded to these limitations by attempting to conceptualize school leadership in new, more practitioner-friendly ways. For example, Leithwood and colleagues (2010) work on *leadership pathways* and Robinson and colleagues (2007) work on *leadership dimensions* begin to isolate exactly what it is that successful principals are doing and how the influence of leadership flows throughout the school organization. By identifying more distinct channels of leader influence, this approach helps to steer educational leadership research in the right direction. Yet, even these pathways and dimensions are too broad and void of a distinct mechanism by which principals can exercise their influence in relationship with teachers. Indeed, there is a need to bring specification to the process of school leadership.

The common understanding that principals fundamentally work through teachers to accomplish the outcomes of schooling (e.g., Hallinger & Heck, 1996) does not diminish the role of the principal; rather it accentuates its importance. A long line of evidence describes two general approaches of school leadership: the process of leading through tasks, structure, and organization (systems orientation) and the process of leading through relationships and people (people orientation) (Evenson, 1959; Halpin, 1959; 1966; Halpin & Croft, 1962; Brown & Anderson, 1967; Kunz & Hoy, 1976; Robinson, Lloyd, & Rowe, 2008). While these two approaches could be advanced as different aspects of the job, Robinson, Lloyd, and Rowe (2008) argue that relationships and people skills are embedded in every dimension of leadership. In essence, the day-to-day work and practice of the school principal, whether it is conducting a faculty

meeting or a teacher evaluation, can be generally understood as a relational process. Therefore, principals cannot separate the task responsibilities from the relationships that determine how tasks are carried out.

In line with the systems orientation, there are several empirical studies which have explored the role of principals in creating school conditions and structures capable of affecting teacher motivation toward improvement (Hallinger & Heck, 1998; Leithwood & Jantzi, 2006; Geijsel, Sleegers, Leithwood, & Janzi, 2003; Geijsel, Sleegers, Stoel, & Krüger, 2009; Eyal & Roth, 2011; Tschannen-Moran, 2009; Supovitz, Sirinides, & May, 2010; Ford & Ware, 2016). Many of these studies have identified specific types of school leadership, namely transformational leadership (Conley & Goldman, 1994; Leithwood, 1994; Halliger, 2003; Geijsel et al., 2003; Leithwood & Jantzi, 2005; Leithwood & Sun, 2012) and instructional leadership (Blase & Blase, 1999; Marks & Printy, 2003; Printy, 2008), and have examined the relationship between strategic leadership structures and behaviors and their corresponding effects on school effectiveness and student achievement. Yet, of these studies, only a few (Geijsel et al., 2009 and Eyal & Roth, 2011, Ford & Ware, 2016), two of which were international, have utilized social-psychological theory to explain how the actions and/or behaviors of school leaders might effectively influence teacher motivation and student learning.

Absent as well from the structural approach to motivating teachers is evidence which explains the generative process by which intentional leader actions might promote changes in the social-psychological well-being of teachers toward improved principal-teacher relationships, teacher development, and instructional effectiveness

(Ford & Ware, 2016; Yukl, 1999; Geijsel et al., 2009). Without a specified mechanism through which school leaders can motivate and exercise their influence in relationship with teachers, the principles of transformational leadership, instructional leadership, leadership dimensions, leadership pathways, and other school leadership concepts are less effective and useful to school practitioners.

The people orientation to leadership, on the other hand, attaches primacy to the consequential nature of relationship as a tool of school leaders. Schools are complex, social organizations consisting of many interdependent relationships (Van Maele, Forsyth, & Van Houtte, 2014; Forsyth, Adams, & Hoy, 2011). Moreover, teaching is complex work with outcomes that are difficult to measure (Labaree, 2000; Grossman, Hammerness, & McDonald, 2008; Van Maele et al., 2014). Because teaching outcomes are often ambiguous, cooperation, professional discretion, and interdependence are necessary to achieve effectiveness and success (Floden & Clark, 1988; Cohen, 1988; Larabee, 2000). The complexity of school organizations and the teaching task underscore the requisite function of effective, interdependent principal-teacher relationships.

Relationships, by nature, involve a human component; thus principal-teacher relationships vary from teacher to teacher and are conditional upon differences in individual teacher personality, motivation, experience, subject area expertise, prior relationships, psychological health, ect. (McEvily, Perrone, & Zaheer, 2003; Dirks & Ferrin, 2002). Due to this complexity, the processes utilized in addressing the leadership responsibility of school principals are not effectively standardized but require flexibility, trust, and intentionality on the part of the school leader (Hoy & Sweetland,

2000, 2001; Forsyth, Barnes, & Adams, 2006; Forsyth & Adams, 2014). Consequently, the approach school principals take in conducting their leadership responsibilities has considerable influence over the social condition of the school, in particular, the health of principal-teacher relationships and the professional wellbeing, motivation, and development of teachers.

When considering the magnitude of school leadership, influence and persuasion are two core actions of effective leaders (Copeland, 1942; Calder, 1977; Pfeffer, 1977). Lortie (2009) argues that the ability of a leader to influence or persuade emerges through interactions that appeal to the values, needs, motivations, and beliefs of the individuals charged with making the organization functional through requisite routines and actions. By nature, we understand that leadership interactions with teachers typically consist of conversations or talk. While talk may occur through various formal and informal mediums (i.e. personal conversation, professional development opportunities, staff meetings, teacher evaluations, emails, and even text messages), all channels of communication involve the transmission of language.

Gronn (1983) reasons that talk is action, maintaining that language used in conversations is a critical dimension of school administration. This study examines the utility of conversation in the day-to-day work of school leaders, arguing that conversation is instrumental to the practice of school leadership towards influencing and motivating teachers. Language, and therefore conversation, should not be viewed simply as an accessory or aid to practice, but rather a core and defining component of the leadership practice of school administrators (Lowenhaupt, 2014). Research, however, does not offer much insight into the potential of intentional leadership

conversations on teachers, their psychological health, well-being, and their motivation for professional growth.

Aims and Scope

In response to these gaps in the literature, this study aims to advance a new construct of intentional school leadership behavior by specifying an underlying theory and mechanism for cultivating effective principal-teacher relationships toward influencing teacher personal and professional well-being, motivation, and performance. In doing so, I utilize Groysberg and Slind's (2012) organizational conversation framework and Deci and Ryan's (2002, 2016) self-determination theory as conceptual and theoretical frameworks to define a type of intentional principal-teacher interaction that emphasizes the potential of conversations to support teacher psychological needs and activate the inner determination of teachers to excel. By applying the tenants of self-determination theory to intentional principal-teacher social interactions, namely conversations, Principal Support of Teacher Psychological Needs (PSTPN) is advanced as a new leadership construct. As such, PSTPN is understood to be a global measure of the degree to which teachers experience their interactions and conversations with their principal as being needs supporting.

At its core, self-determination theory embraces the belief that human growth and development follow an integrative process through which aspects of the social world interact with innate biological tendencies igniting, or undermining, healthy development and personal well-being (Deci & Ryan, 2002, 2016). Through the identification of intentional objects of empowering leadership conversations, the use of self-determination theory in the conceptualization of Principal Support of Teacher

Psychological Needs provides a theoretical lens to better explain how conversations between principals and teachers, both formal and informal, can function as a mechanism to better support teacher psychological needs, enhance principal-teacher relationships, and influence teacher motivation and development. In doing so, it is hypothesized that principals who better support their teachers' psychological needs would experience stronger relationship with their teachers, igniting higher levels of teacher motivation and fostering teacher development. In turn, it is hypothesized that when teachers' psychological needs are met, they would experience well-being, activating higher levels of teacher commitment and job satisfaction. Ultimately, the fulfillment of teachers' psychological needs could have a long-term effect on student learning as well as other important school outcomes. Interactions and conversations that best support teachers in the process of needs fulfillment are those that meet the three fundamental psychological needs of self-determination theory—the need for autonomy, competence, and relatedness (Deci & Ryan, 2002, 2016).

Historically, empirical research in education utilizing self-determination theory has tended to emphasize the effects of autonomy support and competence support on school effectiveness outcomes (Deci & Ryan, 2016), with less empirical attention given to the effects of relational support. In fact, there are very few studies within the context of educational leadership that specifically apply self-determination theory to examine and explain generative leadership behaviors and processes (Eyal & Roth, 2011 and Ford & Ware, 2016 being the only exceptions). In effort to better explain how school leaders can influence teachers in accomplishing the work of schooling, this study advances the

literature by using self-determination theory to explain the potential of PSTPN in promoting teacher personal and professional well-being, motivation, and development.

Purpose

Thus, the purpose of this study is to establish the foundation for a line of inquiry around Principal Support of Teacher Psychological Needs by (1) situating PSTPN within the broader leadership literature, (2) describing the role of conversation as a core and defining component of school leadership, (3) conceptualizing PSTPN by utilizing organizational conversation and self-determination theory, (4) developing PSTPN as a measurable construct, (5) empirically testing the validity and reliability of the PSTPN scale, and finally (6) providing initial evidence of the viability of PSTPN by examining the relationship of PSTPN with conditions that facilitate leader effectiveness.

The research begins with the general question: How can principals better support teacher psychological needs? This basic question leads to a review of literature following the evolution of the role of school leaders towards emphasizing the relational aspect of leadership effectiveness. The following questions guide the research as I argue for the advancement of the construct, Principal Support of Teacher Psychological Needs.

a. Why develop PSTPN as a new construct?
b. How is PSTPN conceptualized?
c. How is PSTPN measured?
d. Is PSTPN related to other conditions of leadership effectiveness and school improvement, such as faculty trust in the principal, teacher commitment, or teacher turnover intention?

Chapter 2: Review of Literature

Before expanding on the conceptualization of Principal Support of Teacher Psychological Needs, it is important to first position this construct historically within the larger leadership literature. The literature review sets out to accomplish two main objectives: 1) to situate the primacy of principal-teacher relations in motivating teachers towards improved school effectiveness and 2) to demonstrate the functional significance of conversation in existing theories and frameworks of leadership. In doing so, the review of literature begins by first identifying two core functions of the leadership process, influence and persuasion. It then proceeds to situate the role of organizational leaders within the context of "human relations" by exploring the evolution of organizational leadership from the ideas of scientific management towards the human relations movement. This includes distinguishing the roles of leaders from managers as it pertains to 21st Century leadership, and identifying the need for increased cooperation and interdependence in modern organizations.

From there, the literature review transitions to the evolution of schools, contending that the idea of cooperation in the organization of schooling seems to have been lost in the irreducible complexity of schools and in the task of the teaching. Consequentially, this has led to isolation over cooperation, independence over interdependence, increased administrative formal control over requisite flexibility, and increased bureaucratic hierarchy. All of which have negatively influence the vitality of principal-teacher relationships. Further, in the process of improving schools, the review of literature addresses the disconnect between the continued use of rewards and sanctions in "high stakes" school accountability and the growing evidence

substantiating the effectiveness of these methods in facilitating motivation and long-term changes in personal behavior and well-being.

From this point, the literature review shifts to its second objective—to demonstrate the functional significance of conversation in existing theories and frameworks of leadership. This is done by analyzing the role of the principal toward influencing student and school outcomes. In doing so, it is firmly established that principals work indirectly through teachers in achieving those outcomes. Further, the influence of school leadership on teachers is examined by exploring the most developed and empirically tested types of school leadership. Specifically, the literature review examines the utility of transformational leadership, shared-instructional leadership, school leadership dimensions, and school leadership pathways in an effort to identify their contributions, limitations, and their compatibility with PSTPN. Finally, the notion of leadership as conversation is introduced to help conceptualize PSTPN, and to explain the potential of needs supportive conversations as an effective mechanism of leadership influence. Thus, we begin the literature review by identifying two core functions of the leadership process: influence and persuasion.

The Leadership Process: Influence and Persuasion

An argument can easily be made that there is no one way to think about leadership. Due to the complexity of the topic of leadership, it is essential to identify and define the core functions of leadership as they pertain to this study. In the development of the construct, Principal Support of Teacher Psychological Needs, leadership is conceptualized as an interactive process of influence and persuasion. We

start by exploring how the original formations of leadership led to understanding leadership as a process of influence and persuasion.

At its conception, the philosophy of leadership rested largely upon the assumption that the most effective leaders simply had the right combination of traits necessary to induce others to accomplish a desired task (Tead, 1929). This explanation, known as the trait theory, defined the leader in terms of personality, explaining why some persons were more equipped than others to exercise leadership (Bowden, 1926; Bingham, 1927). In response to this approach, commonly referred to as the "great man" theory, researchers throughout history have sought to identify the innate traits and characteristics possessed by great military, political, and social leaders (Stogdill, 1948, 1974; Mann 1959; Lord, De Vader, & Alliger, 1986; Kirkpatrick & Locke, 1991).

Similar to the trait theory, scholars have also addressed leadership from a skills perspective. Skills based conceptualizations describe the capabilities (knowledge and skills) associated with effective leaders. Unlike the trait approach, which deals with fixed, inborn characteristics, the skills approach describes leadership through competencies and abilities that can be learned and improved upon (Katz, 1955; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000).

Whether understood in terms of traits or skills, these conceptualizations of leadership pose an important question: Are great people born leaders, or are great leaders developed? To describe leadership as a trait is quite different than describing leadership as a process of developing skills. As mentioned previously, the trait approach suggests that leadership resides in only select people, restricting leadership to those believed to have special innate talents or inborn qualities (Jago, 1982). On the other

hand, viewing leadership as a process makes leadership available to everyone, suggesting that it is a phenomenon that resides within the context. Jago (1982) explains that as a process, leadership is something that can be learned and can be observed in leader behaviors. When understanding leadership as it relates to the conceptualization of Principal Support of Teacher Psychological Needs, it is imperative to view leadership as a process; that it can be learned by all and developed within the context of school leadership.

To this end, the process of leadership has been historically deconstructed as purposeful behavior (Carter, 1953; Shartle, 1956; Heifetz, 1994), persuasive behavior (Copeland, 1942; Koontz & O'Donnell, 1955; Merton, 1969), the exercise of influence (Nash, 1929; Stogdill, 1950; Haiman, 1951; Hunt, 1991), and as the art of inducing compliance (Bundel, 1930; Warriner, 1955; Barker, 1994). These acts of leadership behavior could include leader actions such as praising group members, structuring work relations and processes, or showing consideration for group members' feelings and welfare. Attention to leadership behavior is instrumental because behaviors are leader actions that can be taught and/or changed. Copeland (1942) regarded leadership as the art of influencing a group of people through persuasion or example to follow a line of action. Similarly Koontz and O'Donnell (1955) viewed leadership as "the activity of persuading people to cooperate in the achievement of a common objective." Thus, the purposeful study of leadership behavior is beneficial in helping move educational leadership towards a clearer picture of what exactly it is that effective principals do. Further, it helps to isolate which leader actions could be perceived by teachers as most constructive in supporting principal-teacher relationships and cooperation.

Essentially, the conceptualization of leadership as a process of influence and persuasion emphasizes that attention must be given to the things that leaders do. Understanding leader behavior is important to the development of PSTPN as influence and persuasion are two core actions of effective leaders (Schenk, 1928; Koontz & ’Donnell, 1955; Hollander & Julian, 1970; Katz & Kahn, 1966; Hunt 1991). Lortie (2009) argues that the ability of a leader to influence or persuade emerges through interactions that appeal to the values, needs, motivations, and beliefs of the individuals charged with performing the actions required in making the organization functional. Since principals work indirectly through teachers in accomplishing the outcomes of schooling (Hargreaves & Fink, 2012; Hallinger & Heck, 1996; Leithwood & Jantzi, 1999, Hart; 1993), the ability of a principal to positively influence teachers through their interactions is paramount. In this study, Principal Support of Teacher Psychological Needs emphasizes the interactions between principals and teachers, specifically identifying needs supporting conversations, as a mechanism by which leadership influence can flow and positively affect principal-teacher relationships.

When isolating the interactions involved in principal-teacher relationships, the process of leadership must be further understood in terms of the interaction between the leader and the led (Gibb; 1954; Gordon, 1955; Dansereau, Graen, & Haga, 1975; Yukl, 1994). Viewing leadership as an interactive process involves focusing on the cognitions, interpersonal behaviors, and attributions of both the leader and his/her followers, and in turn evaluating how those characteristics affect each party’s pursuit of mutual goals (Bass, 2010). As such, Northouse (2001) defines leadership as a process, a series of transactional and interactive events, wherein a leader affects and is affected by his or

her followers. Using this definition, leadership is not realized through one-way, top-down direction. Rather, it is to be understood as an interactive two-way process between a leader and a follower.

An interactive, two-way process between a leader and a follower is much like how one would define a conversation. While not explicitly mentioning conversation, both Homans (1950) along with Dansereu, Graen and Haga (1975) define the leadership process as a transaction or an exchange between the two parties. Further, Tannenbaum, Weschler, and Massarik (1961) describe leadership as "interpersonal influence, exercised in a situation and directed through the communication process, toward the attainment of a specified goal or goals" (p. 24). Similarly, Haiman (1951) suggests that "direct leadership is an interaction process in which an individual, usually through the medium of speech, influences the behavior of others toward a particular end." It is not entirely a novel idea to think of leadership as being an interactive process of exchange and influence. However, within the field of educational leadership, the potential of the interactive process of leadership, namely intentional conversation, on teacher psychological health, motivation, and professional development is basically unexplored.

In summary, it is essential for school leadership research to take into account the consequence of principal-teacher interactions, specifically needs supporting conversations, in promoting the development of healthy principal-teacher relationships. With the work in schools primarily being done by teachers, the value of effective principal-teacher relationships cannot be underestimated. Based off this evidence, one could hypothesize that effective school leadership resides in the ability of a leader to

influence and/or persuade teachers toward higher levels of motivation in order to achieve successful school outcomes.

Thus, PSTPN is understood to be an interactive process of influence and persuasion between the school principal and the teacher, an exchange between the leader and the follower. Followers need leaders and leaders need followers (Burns, 1978; Heller & Van Til, 1983; Hollander, 1992; Jago, 1982). While both leaders and followers are involved in this process, it is important to clarify that it is the leader who often initiates the relationship, creates the communication linkages, and carries the burden for maintaining the relationship (Northouse, 2004). However, in order to best understand the role of the school principal in this process, it is helpful to give context to the evolution of organizational leadership, specifically the difference between leadership and management, the complexity of the modern organization, and the emergence of the human relationship movement.

The Evolution of Organizational Leadership

Understanding the distinction between leadership and management in the advancement of PSTPN is important because it addresses the core function of the role within the organization. In many ways, leadership and management are similar processes. Both involve influence, require working with people, and demand an attention to effective goal accomplishment (Northouse, 2004). While the two disciplines overlap to some degree, leadership is distinctly quite different from management (Zaleznik, 1977; Kotter, 1990b; Rost, 1991; Yukl, 2010; Bass & Riggio, 2010).

The study of leadership dates back to the teachings of Aristotle, while the study of management emerged with the dawn of the industrial revolution, materializing

around the turn of the 20th century. As a means to reduce organizational chaos, management was developed to increase efficiency and organizational effectiveness. From this school of thought arose Frederick Taylor's (1911) scientific management and the "one best way." In order to provide distinction, Kotter (1990a) argues that the primary function of management is to provide consistency and order to organizations, whereas the principal function of leadership is to produce change and movement. Bennis and Nanus (1985) make the distinction even clearer contending that managers master routines and accomplish activities while leaders influence others and create visions for change.

Due to the emphasis leadership places on influencing people in contrast to the focus of management on creating efficient systems, this study underscores the role of leadership in the development of Principal Support of Teacher Psychological Needs. It is important to note that organizational success requires a combination of effective leadership and management; however, in this case, the function of leadership is more consistent with the theory supporting PSTPN. For example, Kotter (1987) explains that the leadership process involves (a) developing a vison for the organization; (b) aligning people with that vision though communication; and (c) motivating people to action though empowerment and through basic need fulfillment. Furthermore, Rost (1991) describes leadership as a multidirectional influence relationship, but defines management as a unidirectional authority relationship. Thus, the theory upholding PSTPN is consistent with the understanding of leadership as a two-way interactive and relational process of influence.

Attention to leadership over management converges with the context facilitating the modern organization. Twenty-first century organizations are dynamic institutions continually growing in complexity. Bennis (1989) warned that in order to survive in the 21st century, organizations would need a new generation of leaders—leaders, not managers. He is famously quoted, "Managers do things right, while leaders do the right things" (p. 12). In other words, managers tend to focus on things, but leaders focus on people (O' Leary, 2016; Bennis & Nanus, 1985; Kotter, 1990a). Thus, modern organizational leadership necessitates a focus on people. Still, in order to further develop this idea and the context abetting Principal Support of Teacher Psychological Needs, we must better understand the complex nature of modern organizational leadership, and how that complexity brought about the need for human relations.

From Scientific Management to Human Relations

During the industrial revolution, the work of organizations was standardized and simplified down to a science. In an effort to maximize labor productivity and bolster overall efficiency, Taylor's "one best way" aimed to optimize and streamline work processes. Because of this marginal focus, workers who did not produce or challenged the status quo were viewed as replaceable (Taylor, 1911). Consequently, this managerial practice did not necessarily prioritize worker satisfaction and well-being.

Mindsets began to change, however, during the first half of the 20th century as organizations became more departmentalized and organizational processes more complex. In response, the human relations movement, spurred by the foundational work of Chester I. Barnard, emerged out of necessity in order to facilitate the coordination of the modern organization. From his landmark book, *The Functions of the Executive*,

Barnard (1938) advanced the idea of the formal organization as a complex system of cooperation, stating that cooperation is "conscious, deliberate, purposeful" and requires confidence in the leader (p. 4). According to Barnard, the strategic factor in cooperation was leadership, yet the strategic factor in the dynamic expression of leadership is what he called "moral creativeness." He writes: "Cooperation, not leadership, is the creative process; but leadership is the indispensable fulminator of its forces" (p. 259).

Barnard credits the role of structures and processes in the formation of cooperation, yet emphasizes heavily the "creative function" of leadership in cultivating cooperation. In this process, trust, or faith in the executive on behalf of the follower is essential. Faith in leadership, he noted, must be constructed on what he calls the "moral factor," or ethical responsibility. After mentioning various organizational elements central to cooperation, Barnard adds;

> "… all these elements of organization, in which the moral factor finds its concrete expression, spell the necessity of leadership, the power of individuals to inspire cooperative personal decision by creating faith: faith in common understanding, faith in the probability of success, faith in the ultimate satisfaction of personal motives, faith in the integrity of objective authority, faith in the superiority of the common purpose as a personal aim of those who partake in it." (Barnard, 1938, pp. 259)

In order to achieve cooperation, and ultimately the survival of the organization, Barnard was one of the first to emphasize an appeal to the development of the people who constitute the organization.

Barnard defined formal organizations as "system(s) of consciously coordinated activities or forces of two or more persons" (p. 73), of which contained three elements: 1) communication, 2) willingness to serve, and 3) common purpose. He believed that the success and vitality of the organization was hinged upon the willingness of individuals to contribute to the cooperative system. However, this willingness required

a faith or belief in the common purpose, which was in turn mediated by the maintenance of individual satisfaction. This people-focused approach, stressing that attention must also be made to the informal aspects of the organization, was influential to the development of the human relations school of management thinking. Along with the Hawthorne studies, conducted during the 1920s, these ideas were ground-breaking in that they contradicted those of Taylor and Max Weber, who saw management solely as a scientific process. In conclusion, Barnard's understanding of individual needs satisfaction was revolutionary for its time and in many ways foundational to the ideas of self-determination theory, upon which Principal Support for Teach Psychological Needs is built.

This evolutionary shift from Taylorism and the highly standardized, mechanistic view of organizations is important for understanding the context of the modern organizational structure in which this study is situated. Barnard, along with many other prominent sociologists and organizational theorists (Robert K. Merton, 1957; James G. March & Herbert A. Simon, 1959; Alvin Goulner, 1950; & Victor A. Thompson, 1961), were influenced by the work of Emil Durkheim. Durkheim (1933) made the distinction between traditional organizations, where people tended to be more self-sufficient and the organization more authoritarian and coercive, and modern organizations, which were much more complex and required interdependence and cooperation. Durkheim (1933) helped to illuminate the idea of cooperation, arguing that cooperation within the modern organization depended upon the mutual recognition and embrace of dependence.

The modern human organization is a complex, social system made up both formal and informal structures and processes. As such, effective organizational leadership necessitates an attention to people, placing cooperation and interdependence at the center of effective human organization. While organizational theory since the 1920s has suggested the importance of human relations in the promotion of a healthy work climate (i.e. cooperation and interdependence), within the field of education, the research on principal work and behavior seems to have focused entirely too much on the initiation of structures and tasks, except in the most general terms. While there are consistencies between the general development of organizations and the progression that occurred within schools, the management and leadership focus of schools has historically contradicted the ideas of cooperation and interdependence. The literature review now focuses solely on the leadership of school organizations. This is first done by examining how the restructuring of schools during and after the industrial revolution changed the role of the teacher, the school administrator, and the purposes of schooling.

The Complexity of Schools

In the same way that organizations following the industrial revolution grew in complexity and became more departmentalized, schools as organizations experienced a similar transition. During the 19th and 20th centuries, urbanization, educational policy reform, and America's booming population growth resulted in the influx of the multiple classroom school (Darling-Hammond & Berry, 1988; Fiske, 1992). As a result, the traditional one-room schoolhouse was exchanged for a complex system of massive schooling (Lortie, 1975). Naturally, the role and coordination of the teacher was forever changed, as Lortie put it, "a teacher was no longer the teacher" (p. 4).

Under this new system, the dominate mode of schooling included thousands of school districts with a hierarchy of offices, creating steep educational bureaucracies (Bidwell, 1965; Lortie, 1969). The complexity of larger school units required increased coordination and the assignment of administrative tasks to newly appointed school principals and superintendents. By the 20th century, "teachers had become employees supervised by full-time, physically present male administrators acting on authority of the local school boards" (Lortie, 1975, p. 4). During this period of massive schooling, the teacher, who had once experienced high levels of autonomy, authority, and professional regard, was demoted within the system's steep bureaucratic hierarchy (Engeström, 1987; Lortie, 1975). Teachers were hired, trained, and certified by local school boards and given the responsibility of carrying out educational agency mandates enforced by school districts and school administrators. As a result of the division of labor, teachers became the system's reform agents of change, a role teachers have kept to this day (Fiske, 1992; Wallace, 2007, Lortie 1975).

In an effort to coordinate the work across the burgeoning system of schools, the central activity of massive schooling was to regulate what teachers taught and how teachers instructed their students in the classroom (Wallace, 2007). Unfortunately, this further marginalized the teaching profession, leaving teachers with little power or say regarding classroom curriculum or instruction (Lortie, 1975; Darling-Hammond, 1988). As it did with all industries, the ideas of scientific management influenced the organization of schools, providing the rationalization for the *factory model school* (Darling-Hammond, 2002; Dufour & Eaker, 2004; Fiske, 1992). In fact, William T. Harris, the United States Commissioner of Education from 1889 to 1906, wrote:

> Our schools are, in a sense, factories in which the raw materials (children) are to be shaped and fashioned in order to meet the various demands of life. The specifications for manufacturing come from the demands of the twentieth century civilization, and it is the business of the school to build its pupils according to the specifications laid down. (Harris, as cited in Fiske, 1992, pp. 32-33)

Striving for efficiency and the "one best way", education was reorganized from the top down. Taylorism enabled school administrators under educational bureaucracy to control classroom teachers through standardized curriculum and regimented time (Fiske, 1992; Smith, 1998; Wallace, 2007). In an effort to maintain their autonomy, teachers dealt with this control by closing their classroom doors (Lortie, 1975). Consequently, the multiple classroom school did not fundamentally change the nature of teachers' work or create a system of interdependence and cooperation. Like before, teachers continued to work largely alone with particular groups of students, only now they worked under the general surveillance of a full-time administrator. Instead of promoting interdependence and cooperation, the controlling nature of administrative supervision along with the enforcement of a standardized curriculum further isolated teachers and put distance between teachers and administrators (Lortie, 1975). The effects of this ideology remain present in schools today, giving weight to the necessity of this study, and a focus on developing stronger principal-teacher relationships.

Naturally, mass schooling generated immense growth in the teaching occupation, yet Lortie (1975) argued that the way in which schools grew was problematic. In order to accommodate the growing student population, schools grew in a "cellular" pattern, consisting of "multiple self-contained classrooms and with chronically high turnover" (p. 14). To this day, teachers often teach all subjects to a particular group of students for an entire year, or they teach a single subject to a single

group of students for a specified time. This pattern of isolated work has partially led to the professions' cyclical cellular growth. Furthermore because teaching had been institutionalized from the beginning as high turnover work, it was easier for schools to organize as groups of independent classroom units rather than as highly integrated, cooperative systems (Lortie, 1975). Essentially, as long as teachers worked independently of each other, it was easier for school administrators to manage the coming and going of teachers without sending the organization into chaos.

Clearly, this pattern of cellular organization within schools has been highly problematic. Year in and year out, schools suffer from the negative effects of chronic turnover and the continual loss of teaching expertise. Along with cellular school growth, the continued use of formal administrative control, enforcement of a standardized teaching curriculum, and highly structured teacher supervision further contribute to teacher isolation and limited interdependence (Lortie, 1975; Miskel, McDonald & Bloom, 1983; Zielinski & Hoy, 1983; Fiske, 1992). Consequently, the long-term effects of the massive schooling movement remain embedded in today's educational system. These effects include: steep bureaucratic hierarchy, cellular patterns of growth with high turnover, site-based administration enforcing educational mandates to be implemented by teachers, and disenfranchised teachers serving as the policymakers' agents of change (Wallace, 2007).

To complicate matters, not only are schools complex organizations, but teaching is complex work (Labaree, 2000; Grossman, Hammerness, & McDonald, 2008; Van Maele, Forsyth, & Van Houtte, 2014). The complexity of teaching, however, is often undermined by what Lortie (1975) calls the "apprenticeship-of-observation." By the

time the average student graduates high school, he or she has spent over 13,000 hours in direct observation of classroom teachers (Lortie, 1975). The result of this all-inclusive apprenticeship has historically perpetuated the notion that "anyone can teach" (p. 62). To put it simply, teaching is an enormously difficult job that looks relatively easy (Larabee, 2000).

Contributing to its complexity, teaching is, at its core, the practice of human improvement (Cohen, 1988). Success, therefore, is largely dependent on the active cooperation of students (Fenstermacher, 1990). Students must be willing to learn what the teacher is teaching, yet, students are diverse on many dimensions: race, gender, prior learning, motivation, interest, cognitive skills, etc. In order to achieve success, teacher mastery of subject area knowledge is insufficient; teachers must also work to establish and actively manage an emotional relationship with students (Labaree, 2000). While there is no guidebook for how to effectively accomplish this, a personal, yet professional relationship with students is essential for understanding individual student learning problems and for motivating students to cooperate and interact with the learning process (Fenstermacher, 1990; Parsons, 1951). Moreover, the effectiveness of teaching is constantly at odds with the conflicting purposes society imposes upon education as a whole (Larabee, 1997). By and large, teaching remains an uncertain enterprise marked by its irreducible complexity (Cohen, 1988; Jackson, 1986; Lortie, 1975; Larabee, 2000).

As such, complex tasks, like teaching, are not easily programmable or able to be routinized (Van Maele, Forsyth, & Van Houtte, 2014). The outcomes of successful teaching are often ambiguous and require interdependence and cooperation of teachers

and school leaders, making them difficult to measure (Floden & Clark, 1988; Cohen, 1988; Larabee, 2000). Due to the complex nature of teaching, Van Maele and colleagues (2014) explain that the use of administrative formal control is often adverse to success because it "specifies behaviors and practices *a priori* that limit the requisite flexibility workers in the technical core (teachers) need to do their complex work" (p. 85). When outcomes are easily measured and processes standardized, formal control is quite effective because the task is simple and programmable (Van Maele et al., 2014). Yet, clearly this is not the case with schools or teaching for that matter. Regularly in the case of schools today, the type of administrative control (or leadership style) utilized is not appropriately matched with the complexity of the task at hand (Kirsch, 1996).

Fundamentally, the idea of schools as cooperative systems of organization seems to have been lost. Instead of placing cooperation at the center of effective human organization, schools today are forced to focus heavily on student performance outcomes and value-added metrics (Van Maele, Forsyth, & Van Houtte, 2014). In the wake of "high stakes" educational improvement initiatives, such as *No Child Left Behind* (NCLB) and *Race to the Top,* policy makers, community leaders, and families have looked to school principals and teachers to double-down in the effort to reduce the continuing educational achievement disparities between ethnic sub-groups and social classes (Organisation for Economic Co-operation & Development, 2001; Marks & Printy, 2003). Despite research revealing the failures and limitations of this narrow, outcome-driven approach, high stakes school accountability is continually imposed on teachers and school leaders by educational policy established by state and local governments (Darling-Hammond, 2004; Fullan, 2010; Baker et al., 2010; Heck, 2000;

Ravitch, 2011). Unfortunately, the use of standardized teaching curriculum, formal teacher evaluation, and high stakes school accountability are in many ways more consistent with the ideas of scientific management and "the one best way", ignoring the requisite flexibility required of complex tasks like teaching and valuing efficiency over relationships.

Reinforcing the commitment to "high-stakes" accountability is the belief that use of external incentives to bolster performance will motivate educators towards improvement (Ryan & Weinstein, 2009; Harris & Harrington, 2015). However, upon review of the broader motivation literature, there is a glaring disconnect in this ideology. Scholarship regarding motivation has shown the use of extrinsic rewards/punishments to be ineffective in facilitating long-term meaningful change in individual behavior and well-being (Deci & Ryan, 1985; Deci, Koestner, & Ryan, 1999; Niemiec & Ryan, 2009; Ryan & Deci, 2000a, 2002; Ryan & Brown, 2005). Due to the complex nature of teaching, which requires cooperation, professional discretion, and interdependence to achieve goals and outcomes, the use of externally regulated controls seems particularly incompatible for supporting improvement (Niemiec & Ryan, 2009; Eyal & Roth, 2011; Roth, 2014; Johnson, 2015; Ford & Ware, 2016). Instead of bolstering principal-teacher cooperation and fostering relational health between the two parties, there is growing evidence that the use of high-stakes teacher evaluation systems could have unforeseen negative consequences on teacher self-efficacy, cooperation, satisfaction, and professional commitment (Kappler-Hewitt, 2015; Ford, Van Sickle, Clark, Fazio-Brunson, & Schween, 2015; Ford & Ware, 2016).

A major criticism to the extrinsic approach in motiving teachers is that is fails to recognize the historically high levels of intrinsic motivation and commitment found within the teaching profession (Lortie, 1975; Ingersoll, 2003; Darling-Hammond, 2013, 2014; Watt & Richardson, 2008; Richardson & Watt, 2014). In order to affect the quality of instruction and/or to increase teachers' capacity toward improvement, teachers must be intrinsically motivated and committed to take charge of their own teaching practice (Ford & Ware, 2016; King, 2004; Spillane & Louis, 2002). In fact, approaching school improvement extrinsically through the use of rewards and/or sanctions could have more unforeseen, long-term negative consequences than positive ones (Ryan & Wwinstein, 2009). Instead, theory would suggest that the focus of school improvement should be on finding ways to ignite and develop teachers' existing intrinsic motivation and commitment toward improvement and school effectiveness.

Along those lines, a few studies (Eyal & Roth, 2011; Ford & Ware, 2016) have begun to address the ability of school leadership in creating organizational and social conditions capable of developing teachers' self-regulation and activating teachers' existing intrinsic motivation towards improvement. Eyal and Roth's (2011) findings suggest that specific styles of leadership among principals (namely transformational leadership) can play a significant role in teachers' motivation and well-being. Further, Ford and Ware (2016) suggest that the presence of a teacher self-regulatory climate (TSRC), one that supports the psychological needs of teachers, is most conducive to teacher learning and development. While both of these studies use self-determination theory as theoretical frameworks to explain how leader actions and school conditions can foster teacher motivation toward improvement, neither emphasizes the role of

intentional principal-teacher interactions and conversations as a mechanism by which principals can effectively ignite and promote teacher well-being, motivation, and development. Thus, this study advances Principal Support of Teacher Psychological Needs as a means to encourage interdependence and cooperation in schools by using intentional needs supportive conversations to nurture principal-teacher relationships and to reignite teacher intrinsic motivation.

In summary, teaching is complex work and schools are complex organizations. The examined literature confirms that school leadership is an interactive, cooperative process requiring an intentional focus on teachers, the organizations' agents of change (Barnard, 1938; Kotter, 1987; Van Maele et al., 2014; Forsyth et al., 2011). This cooperative process underscores the significance of the principal-teacher interaction. Yet, interactions between principals and teachers vary on many different dimensions: motivation, experience, subject area expertise, prior relationship, psychological health, ect. (McEvily et al., 2003; Dirks & Ferrin, 2002). Because of this, the strategic process of school leadership is not static but specific to the context. Leaders, especially in schools, face day-to-day complexities and challenges requiring a flexible, immediate response to stimuli (Mintzberg, 1994). As such, organizational leadership processes are not effectively standardized but demand a requisite flexibility toward the nurturance of relationships. Accordingly, the approach principals take to their leadership responsibilities has considerable influence over the organizational and social condition of the school, in particular, the psychological wellbeing of teachers.

In response to the complexity of schools, the complexity of teaching, and the corresponding administrative challenge of school leadership, educational researchers

and practitioners have continuously worked to develop the best school leadership theories and models of practice. While educational research has sought to continually develop the role of the school principal, this study argues that too much emphasize has been given to tasks and structure in accomplishing the goals and effectiveness of school leadership. Organizational tasks and structures certainly play an important role toward achieving school effectiveness; however, central to the mission of this study, the primacy of principal-teacher relations cannot be ignored in the accomplishment of these tasks.

The debate of task and structure versus relationship will be further discussed in the next section of the literature review where I set out to accomplish the second objective of the review—to demonstrate the functional significance of conversation in existing theories and frameworks of leadership. This is done by further analyzing the role of the principal and exploring the most developed and empirically tested types of school leadership. Specifically, the literature review examines the utility of contingency theory, transformational leadership, shared-instructional leadership, school leadership dimensions, and school leadership pathways in an effort to identify their contributions, limitations, and their compatibility with PSTPN.

School Leadership

Schools depend on principal leadership to facilitate the quality of instruction and to enhance the performance of students (Senge et al., 1999, 2000; Marks & Printy, 2003). Yet, the relative effect of principal leadership on students' academic and nonacademic outcomes has garnered increasing speculation. Since the turn of the century, more than five reviews of empirical research on the direct and indirect effects

of principal leadership on student outcomes have been published (Robinson, Lloyd, & Rowe, 2008; Witziers, Bosker, & Krüger, 2003; Bell, Bolam, & Cubillo, 2003; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; Leithwood, Day, Sammons, Harris, & Hopkins, 2006). With the current state of our public school systems, this heightened interest is not surprising. Principals and teachers today are subject to increased public and political pressure to lead the charge in reducing the continuing educational achievement disparities between ethnic sub-groups and social classes (Marks & Printy, 2003; Organisation for Economic Co-operation & Development, 2001). Yet, what exactly is the role of the school principal in addressing these deficiencies?

Research has shown that the role of the school principal is key to school improvement efforts (Darling-Hammond et al., 2007; Hallinger and Heck, 1996; Horng, Klasik, & Loeb 2010; Hargreaves & Fink, 2006, Lowenhaupt, 2014). However, in order to better understand the magnitude of the role, it is beneficial to examine the evidence further. On one hand, qualitative case studies of "turn around schools" have bolstered confidence in the direct effects of leadership on school effectiveness and improvement. These studies have found school leaders to have a considerable effect on student outcomes and teaching effectiveness (Edmonds, 1979; Scheurich, 1998; Maden, 2001). Additionally, the literature on leadership succession has identified quality school leadership as requisite for sustainable organizational learning and improvement (White & Cooper, 2011; Hart, 1993, Hargreaves & Fink, 2006). While qualitative research has regularly found school leaders to possess a sizeable effect on student academic and social outcomes, quantitative research analysis has yielded quite different results.

Generally speaking, quantitative researchers have found the effects of school leadership on student outcomes to be small and largely indirect (Hargreaves & Fink, 2012; Seashore Louis et al., 2010, Hallinger & Heck, 1996; Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003). Under this conception, schoolwide effects on student outcomes are essentially mediated by teachers (Hallinger & Heck, 1998). Marks and Printy (2003) explain that while school leaders are responsible for establishing the conditions for learning and providing opportunities for teacher development, teachers ultimately have a more direct influence on student outcomes. Witziers' (2003) meta-analysis of 37 international studies found the direct effect of school leadership on student outcomes to be on average 0.02 (reported as a z score), which essentially indicates no effect or a very weak one at that. In a similar meta-analysis, Marzano and colleagues (2005) reported the average effect between school leadership and student outcomes to be 0.38. This effect, while larger than Witziers, is still considered to be a small effect. Consistent with the typical conclusion drawn by quantitative researchers, this study considers the effect of principal leadership on student academic and social outcomes to be small and indirect, emphasizing the importance of teachers in facilitating school improvement efforts (Hallinger & Heck, 1998).

The notion that principals fundamentally work through teachers does not diminish the role of the principal in enacting organizational change or influencing student outcomes. On the contrary, the significance of the role is heightened. Hart (1993) contents that leaders, especially in professional workplaces like schools, do their work though others (teachers). Consequentially, when attempting to improve student academic performance or other school improvement initiatives, the principal-teacher

relationship is key and should not be disregarded (Marks & Printy, 2008). Because teachers are fundamentally the school's agents for change and improvement, it is logical to assume that principals who recognize this would adjust their leadership style and behavior accordingly. This assumption suggests that the effectiveness or success of the principal is dependent upon how well the principal's leadership style fits the context of the school.

Contingency Theory

Leader-match theory is not a new idea, but is fundamentally *contingency theory*. Even though several approaches to leadership could be called contingency theories, Fiedler's (1964, 1967; Fielder & Garcia, 1987) contingency theory is most commonly recognized (Northouse, 2004). Contingency theory posits that effective leadership is *contingent* on matching a leader's style to the appropriate setting, suggesting that effectiveness depends upon the goodness of fit (Fiedler & Chemers, 1974). Leadership styles, within the framework of contingency theory, are described as either *task motivated* or *relationship motivated* (Fielder, 1967; Northouse, 2004). A task motivated leader is primarily concerned with reaching a goal and views a person's worth in terms of what needs to be done. On the other hand, a relationship motivated leader is more concerned with developing a close interpersonal relationship with people and emphasizes the importance of human relations. In many ways contingency theory mirrors the ideas of Taylor's (1911) scientific management and Barnard's (1938) human relationship movement. However, Fiedler takes it one step further. Instead of simply arguing for the best leadership style, Fiedler (1964) was interested in

understanding how different leadership styles were most appropriate and effective for a given situation.

In order to measure leadership style, Fielder (1964) developed the Least Preferred Coworker (LPC) scale. According to the scale, leaders with a high LPC score are identified as relationship motivated while leaders with a low LPC score are considered task motivated (Northouse, 2004). Contingency theory characterizes leadership situations by assessing three factors: *leader-member relations, task structure,* and *position power* (Fielder, 1964). By comparing these three situational factors with the contingency model, the overall favorableness of a defined situation can be determined. Ideally, situations described as most favorable are characteristic of good leader-follower relations, defined tasks, and strong leader position power (Fielder, 1967, Northouse, 2004). This becomes interesting and more relevant when we compare this ideal situation to the context of the typical school environment.

Within the school setting, principals maintain a relatively strong position of power, but not quite as strong a position as similar leadership roles in other public and private sectors. While a principal has some authority over the hiring and firing of teachers, salary scales and pay raises are predetermined by school districts and state governments. This limitation, along with a host of other district regulations, diminishes to some degree a principal's position of power in regards to teachers. Additionally, as established previously, the task of schooling is complex and not easily defined (Cohen, 1988; Jackson, 1986; Lortie, 1975; Larabee, 2000). The lack of definition surrounding the task of teaching and the power position held by the school principal contributes to

the relational dynamics found within the context of schools. Furthermore, this leads to the relevance and focus of this study: the primacy of leader-follower relations.

Because teaching is a complex task and teachers are the school's agents of organization change, this study suggests that effective principal leadership is contingent upon good leader-follower relations. Although contingency theory helps to identify the ideal type of leadership matched to fit the typical school context, it doesn't exactly address how a leader creates and maintains good leader-follower relations or recognize a mechanism by which leaders can influence teachers towards school effectiveness. This is not only a limitation of contingency theory, but of many of the prominent educational leadership conceptualizations. Knowing that healthy principal-teacher relations are important is not enough; attention must be given to the effective nurturance of these relationships. Leader-follower relations vary across schools, often measured as faculty trust in the principal (Hoy, Smith, & Sweetland, 2002; Hoy & Tschannen-Moran, 2007; Forsyth, Adams, & Hoy, 2011; Ford & Ware, 2016). Yet, why is there variation? What features are characteristic of a principal that is effective at creating and maintaining healthy relationships with their faculty?

Several recent studies have suggested a generalized list of responsibilities characteristic of successful school leaders, including: setting a direction for the school, organizing school resources and work processes, developing people, and managing the instructional program (Leithwood et al., 2006; Leithwood & Riehl, 2003; Seashore Louis et al., 2010). Consistent with contingency theory, a long line of evidence further distinguishes two general approaches of school leadership: the process of leading through tasks, structure, and organization (systems orientation) and the process of

leading through relationships and people (people orientation) (Evenson, 1959; Halpin, 1959; 1966; Halpin & Croft, 1962; Brown & Anderson, 1967; Kunz & Hoy, 1976; Robinson, Lloyd, & Rowe, 2008). While these two approaches could be advanced as different aspects of the job, Robinson, Lloyd, and Rowe (2008) argue that relationships and people skills are embedded in every dimension of leadership. In essence, the day-to-day work and practice of the school principal, whether it is conducting a faculty meeting or a teacher evaluation, can be generally understood as a relational process. Therefore, principals cannot separate the task responsibilities from the relationships that determine how tasks are carried out.

Thus, the argument could be made that the primacy of healthy leader-follower relations is foundational to the leadership practice of successful principals. Because this study aims to identify a mechanism through which school leaders can better support teacher psychological needs towards improved principal-teacher relationships, it is necessary to further narrow the scope to specific school leadership practices. Instead of conceptualizing leadership comprehensively, it is helpful to target the specific actions of school leaders and their associations with the various types of school leadership. Further, the evaluation of leader actions can be a useful tool in identifying the priorities and strategic agendas set in place by school leaders.

Principals today are bombarded with an overwhelming surplus of leadership conceptualizations and models of leadership practice. Yet, over the past few decades, two primary school leadership theories have dominated the empirical research—transformational leadership and instructional leadership (Hallinger, 2003; Marks & Printy, 2003; Robinson, Lloyd, & Rowe, 2008). Accordingly, this literature review

focuses heavily on transformation leadership and instructional leadership. This choice was made not only because of their dominance within the field of school leadership research, but also because their research programs are more fully developed and have yielded sufficient evidence for analysis (Robinson, Lloyd, & Rowe, 2008). Analysis of these two leadership theories reveals how differences in the leadership practice of a principal can affect teachers' perceptions of supportive leadership behavior. Thus, the role of Principal Support of Teacher Psychological Needs is examined in connection to these two theories.

Transformational Leadership

Non-school organizations have been exploring transformational leadership for decades. Downton (1973) was the first to use the term transformational leadership; however, it was Burns (1978) and later Bass (1985) that first developed the concept and established it as a significant approach to leadership. By examining the role of leaders in relation to their followers, Burns (1978) provided the initial conceptual grounding for the theory by differentiating it from transactional leadership. Transactional leadership, Burns explains, focuses on the exchange process between leaders and followers; that is, "leaders approach followers with an eye toward exchanging" (p. 4). In this case, both the superior and the subordinate derive something of value by influencing one another in a reciprocal manner (Yukl, 1998). Under these circumstances, leaders are successful when they engage their followers in a mutually dependent relationship where both sides contribute and are rewarded (Kellerman, 1984).

In this context, however, leader effectiveness is contingent upon a leader's ability to continually meet and react to the changing expectations of his/her followers

(Kellerman, 1984). This is problematic when looking at the dynamics of principal-teacher relationships as teachers' expectations and needs vary and change over time. Without an intentional focus on relationship, it would be difficult for transactional school leaders to accurately gauge the needs and expectations of their teachers. Applying the ideas of Burns (1978) to organizational management, Bass (1985) argued that transactional leaders, "mostly consider how to marginally improve and maintain the quantity and quality of performance, how to substitute one goal for another, how to reduce resistance to particular actions, and how to implement decision" (p. 27). Thus, the goals of transactional leadership tend to be tied to compliance and efficiency, not necessarily to the needs and values of people.

In contrast, transformational leadership focuses on the relational process between the leader and his/her followers, involving shifts in the values, the beliefs, and the needs of followers (Kuhnert & Lewis, 1987). Transformational leadership is grounded in the ability of leaders to motivate and engage their followers in ways that encouraged new levels of commitment, energy and moral purpose (Burns, 1978; Robinson et al., 2008). According to Burns (1978), "the result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents" (p. 4). The formation of an engaging relationship between a leader and a follower helps to create a sense of personal connection, which in turn increases motivation and morality in both parties (Burns, 1978).

The centrality of the principal's role in school reform has been affirmed though transformational leadership research, specifically in shaping organizational culture and

introducing innovation into the workplace (Conley & Goldman, 1994; Leithwood, 1994). Fundamentally, principals who act as transformational leaders seek to provide intellectual direction, aiming to innovate the school organization while supporting and empowering teachers as partners in decision making (Conley & Goldman, 1994; Leithwood, 1994; Marks & Printy, 2003). Under this model, the function of a school principal is to serve one of two purposes—to transform school cultures or to maintain them (Firestone & Louis, 1999; Leithwood & Jantzi, 1999). Still, in order to be effective, a principal must know explicitly how to do this though specified channels or mediums of influence.

Effective transformational leaders seek to maximize the potential of their followers. This is accomplished by tending to the needs of their followers and motivating them to forsake their own self-interest through acting in ways that support the greater good and the organization at large (Kuhnert, 1994). Hallinger (1992) explains that principals seeking to accomplish schoolwide reform and improved organizational performance must focus on problem finding, problem solving, and collaboration with stakeholders. Further, Marks & Printy (2003) advance that in order to develop the collective capacity of the school organization and its teachers, transformational principals must seek to raise teachers' level of commitment (Burns, 1978), encourage teachers to reach their fullest potential (Bass & Avolio, 1993), and support teachers in transcending their own self-interest for the good of the school organization at large (Bass & Avolio, 1993; Sagor & Barnett, 1994; Leithwood, Tomlinson, & Genge, 1996; Silins, Mulford, Zarins, & Bishop, 2000). Like most leadership conceptualizations, transformational leadership identifies important leader

characteristics. Yet still, the theory is limited by the lack of research dedicated to the practical application of these qualities.

Transformational leadership research claims that leaders need to support and empower teachers. But the real question remains: how exactly does a school principal do this? How do principals effectively tend to the needs of their teachers, motivate them, and empower them in decision making? These questions raise fundamental limitations to the utility of transformational leadership and underscore the significance of the development of PSTPN. For school leaders, practical knowledge in demonstrating transformational leadership proves much more valuable than theory alone.

Upon closer examination of each of the leadership tasks advanced by transformational leadership theory, whether it is encouraging teachers, problem solving, or raising teacher commitment, a central theme in application emerges. All of the tasks associated with transformational school leadership involve interactions, primarily with teachers, which are facilitated by conversation. This observation signals an important question: what is the role of conversation in transformational school leadership? Furthermore, is the substance of principal-teacher conversations important? Few studies have looked empirically at this unique perspective. This study aims to situate the idea of Principal Support of Teacher Psychological Needs within the context of everyday school leadership behavior. Yet, before fully exploring the relationship between PSTPN and strategic principal leadership behavior and practice, a brief history and overview of the contributions and limitations of instructional leadership and shared-instructional leadership will prove beneficial.

Instructional Leadership

While transformational leadership focuses on renewing the school organization and its personnel through heightened commitment and relationship, the theory lacks an explicit concentration on curriculum and instruction (Hallinger & Leithwood, 1998). To account for this limitation, instructional leadership theory determines to designate the principal as the primary source of educational expertise within the school (Marks & Printy, 2003). Developed during the effective schools movement of the 1980s, instructional leadership seeks to standardize effective teaching practices. Central to the mission of instructional leadership is the role of the school principal and his/her corresponding instructional responsibilities, which include: supervising classroom instruction, coordinating the school's curriculum, maintaining high expectations for all students and teachers, and monitoring student progress (Barth, 1986).

The applicability of instructional leadership in practice, however, fell quite short. Early formations of the theory focused solely on the work of the principal, neglecting the valuable contributions of teachers and other school staff toward instructional effectiveness and positive academic and learning cultures (Hallinger & Murphy, 1985). Not only did many principals lack the requisite knowledge and skills to effectively accomplish the tasks of instructional leadership, but coaching and on-site assistance were limited (Cuban, 1984; Murphy & Hallinger, 1987). In fact, pinning the instructional focus exclusively on the school principal often led to feelings of inadequacy and guilt for principals striving to fulfill this "heroic view" (Hallinger, 2005).

Furthermore, Marks and Louis (1997) explain how the hierarchical orientation of instructional leadership conflicted with the emerging restructuring of schools occurring at the time. Schools during the late 1980s were undergoing fundamental decentralization, becoming more democratic and participative through the empowerment of teachers as professional educators (Marks & Printy, 2003; Malen, Ogawa, & Kranz, 1990). In wake of the professionalization of teaching, traditional forms of instructional leadership were often criticized as being "archaic, paternalistic, and dependent on docile followers," whereas teachers in this new era welcomed the opportunity to play more informed and active roles in improving instruction (Burlingame, 1987; Poplin, 1992; Sheppard, 1996; Little, 1993) In this way, the acknowledgment of teachers in decision making marked a significant shift in the evolution of instructional leadership toward shared-instructional leadership.

Shared-Instructional Leadership

Unlike the traditional form of instructional leadership, shared-instructional leadership is an inclusive concept recognizing competent and empowered teachers (Marks & Printy, 2003). Shared-instructional leadership posits that teachers possess the best information on their students and their learning styles because they are the ones working directly with students. The concept recognizes that teachers need to be included in the instructional decision making process, as well as be able to use their own discretion when making curricular and instructional decisions (Hallinger, 1992; Sykes, 1990). Under this upgraded model, principals work in greater collaboration with teachers, sharing resources and offering instructional support (Rosenblum, Louis, & Rossmiller, 1994). As a result of this fundamental shift, the school principal became

more a facilitator of teacher growth and less an inspector of teacher competence (Poole, 1995). Conventionally, teachers within a school participate in shared-instructional leadership informally; however, teachers also have the opportunity to take on more formal instructional leadership roles, such as team leads, mentor teachers, or department chairs (Prestine & Bowen, 1993).

Involving teachers in the instructional process not only provided opportunities for teachers to serve in school leadership roles, but it also enabled teacher participation in goal setting, curricular planning, and instructional development (Conley & Goldman, 1994). In doing so, teachers gained a greater sense of professional legitimacy, and at the same time experienced more individual classroom autonomy (Little, 1988; Smylie & Kenny, 1990). In response, this increased latitude over time has been found to improve both teacher satisfaction and student achievement (Darling-Hammond & Goodwin, 1993; Maeroff, 1988; Schlecty, 1990).

Models of shared-instructional leadership demonstrate a much more collaborative leadership structure. The principal remains the central educational leader of the school, yet the instructional expertise and information possessed by teachers is much more valued (Reitzug, 1997; Marks & Printy, 2003). Thus, as schools transitioned to a more inclusive instructional approach, the shift toward shared-instructional leadership had significant implications for the level of interdependence found in principal-teacher relationships. As this study addresses the significance of constructive principal-teacher relationships, it is also important to note that studies have shown that educational reform initiatives have a greater chance for success when teachers are included with school leaders in the decision-making process (Blase & Kirby, 2000;

Conley & Goldman, 1994). Thus, in complex organizations, such as schools, higher levels of interdependence are required. Clearly, teachers need to be included in the instructional decision making process, and organizational theory would support the notion that high levels of principal-teacher collaboration and interdependence are beneficial to school effectiveness. However, if school leaders are not equipped with the necessary leadership tools to facilitate increased principal-teacher collaboration, the effects on school organizational health and teacher moral could be more damaging than productive.

Similar to transformation leadership, effective principal-teacher collaboration requires high levels of interaction, which again is almost always mediated through conversation (i.e. questioning and dialog). To illustrate this point further, Blase and Blase (1999) explain how under shared-instructional leadership principal and teachers work together as "communities of learners", discussing alternatives rather than directive or criticisms. Under ideal shared-instructional leadership, teachers would engage in the community of learning by interacting with principals and reporting evidence of positive changes in their pedagogical practices (Blase & Blase, 1999; Marks & Printy, 2003). However, this mutual interdependence requires a certain level of trust between the principal and the teacher whereas the teacher is confident in experimenting with changes in his/her instructional methods.

Blase and Blase (1999) acknowledge that experimentation involves the use of various and innovative teaching techniques and the willingness of teachers to take risks. Thus, shared-instructional leadership expresses the need for principals to be both competence supportive and autonomy supportive in relationship with their teachers.

Apart from relationship, however, it is difficult for a principal to display competence support or autonomy support. Marks and Printy (2003) go on to explain that the contribution of principals to communities of learning is marked by the promotion of teacher reflection and professional growth. Yet, this again raises an important question: In practice, how does a principal effectively promote teacher reflection that has the potential to ignite personal and professional growth?

One possible recommendation is that principals learn to ask meaningful questions. In doing so, principals have the potential to promote a culture of sharing and questioning through the engagement of their faculty in constructive conversation. Towards this end, a recent study by the Center for Creative Leadership confirmed the importance of questioning in the workplace. The study found that the key to successful leadership is the ability of a leader to ask effective questions and to create an environment where others feel the liberty to ask meaningful questions (Marquardt, 2005). Despite what many think, leaders, even great leaders, do not have all the answers. However, a great leader understands the power of questions, and more importantly, understands that the ability to ask meaningful questions lies within their domain.

Within the context of schooling, principals who develop a culture of questioning, create a culture in which ideas are shared, responsibility is shared, and problem are shared. Marquardt (2005) explains how this creates a culture of "we," rather than a culture of you verses me, or in the case of the school organization, the school principal versus the teacher. Moreover, a school culture of "we" could change the way in which teachers talk about problems; problems are no longer yours or mine,

but ours. In the case of the development of PSTPN, a culture of meaningful questioning and sharing has the potential to help empower and motivate teachers, further promoting interdependence and cooperation.

In essence, shared-instructional leadership theory and transformation leadership theory are both valuable theories of school leadership, and their significance is evident by their dominance within the field of educational leadership research (Hallinger, 1992; Marks & Printy, 2003; Robinson, Lloyd, & Rowe, 2008). However, without a clear mechanism by which to advance the concept beyond its theoretical application, both transformation leadership theory and shared instructional leadership theory are limited in their utility.

School Leadership Mediators

In response, over the past 15 years or so, educational researchers have begun to address the issues concerning the limited utility of school leadership theory. By and large, the research community has found sufficient empirical evidence justifying the effects of school leadership on important school outcomes and student learning (Darling-Hammond et al., 2007; Hallinger and Heck, 1996; Horng et al., 2010, Hargreaves & Fink, 2006). While there is debate over the relative size, the effect is generally understood to be both positive and statistically significant (Waters, Marzano, & McNulty, 2003; Robinson, Hohepa, & Lloyd, 2009; Mulford, Johns, & Edmunds, 2009). Thus, the focus of many educational leadership researchers has moved towards questions about how these effects occur. Because the influence of school leadership on school and student outcomes is widely understood to be indirect (Hallinger & Heck, 1996; Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003; Hargreaves &

Fink, 2012), addressing the "how" question requires examining the best possible mediators of school leadership influence (Leithwood & Sun, 2012).

In order to accomplish this task, multiple educational research studies have attempted to identify significant leadership mediators by analyzing important school leadership processes, beliefs, and behaviors (Hallinger & Heck, 1996; Hoy, Tarter, & Hoy, 2006; Bryk & Schneider, 2002; Silins & Mulford, 2002). However, upon review, the findings are quite general in nature and too complex for direct use in practice (Leithwood, Patten, & Jantzi, 2010).While these studies are useful for identifying important school-leadership variables hypothesized to influence student learning (i.e. the significance of relational trust, academic optimism, professional learning communities, setting direction, developing people, ect.), they too lack the specification of explicit mechanisms grounded in theory by which school leaders can work through teachers to influence student outcomes. In review of this literature, Leithwood and colleagues make a telling observation; "Such approaches to the identification of powerful leadership mediators provide little guidance to practicing leaders who, just like researchers, are in the business of deciding where best to focus their efforts" (p. 673). Thus, current educational leadership studies have responded to these limitations by attempting to conceptualize school leadership in new, more practitioner-friendly ways. To explain how school leadership can be more effective and influential, these new conceptions of leadership approach the topic by way of leadership dimensions and leadership pathways.

Leadership Dimensions

In attempt to counter the limitations of traditional school leadership research, Robinson, Hohepa, and Lloyd (2007) argue for a completely different approach. Within the literature, there are discrepancies between qualitative research (Edmonds, 1979; Maden, 2001; Scheurich, 1998) and quantitative research (Hallinger & Heck, 1998; Marzano, Waters and McNulty, 2005) concerning the relative size and nature of the effect of school leadership on school outcomes and student learning. Yet, Robinson and colleagues (2007) contend that questions regarding such matters are in many ways fundamentally flawed. In her opinion, the answer undoubtedly resides in what school leaders are doing. Instead of focusing heavily on the nature or size of the effect, Robinson, Hohepa, and Lloyd (2007) content that the emphasis of educational research should be more on what it is that leaders do. To this end, Robinson and colleagues propose a shift in educational leadership research towards identifying which specific types of school leadership practice have comparatively more or less influence on students and school outcomes. She calls these leadership types, leadership dimensions, or sets of related school leader practices.

Besides solely identifying the dimensions of leadership with the greatest potential for influence, Robinson and colleagues (2007) also provide an explanation for why each dimension works. This is largely done because contemporary educational research on teacher and professional learning has shown that providing an explanation is essential to effectiveness. Without a thorough understanding of the theoretical principals guiding the dimensions of leadership, detailing why they work, and under what conditions the dimensions thrive, teachers and school leaders struggle to adapt

descriptions of effective practice into their own work context (Timperley, Wilson, Barrar & Fung, 2007). To this end, Robinson and colleagues (2007) maintain that professional learning is most powerful and effective when accompanied by description, practical example, and theoretical explanation. In the development of PSTPN, a strong theoretical foundation in self-determination theory is laid for this very purpose.

To identify the leadership dimensions with the greatest potential for influence, Robinson, Hohepa, and Lloyd (2007) conducted a meta-analysis of published research examining both the direct and indirect links between school leadership and student outcomes. In total, the meta-analysis included 26 studies, published between 1978 and 2006. After careful analysis, the following five categories of leadership dimensions were inductively derived from the literature: 1) *Establishing Goals and Expectations*, 2) *Strategic Resourcing*, 3) *Planning, Coordinating and Evaluating Teaching and the Curriculum*, 4) *Promoting and Participating in Teacher Learning and Development*, and 5) *Ensuring an Orderly and Supportive Environment* (Robinson, Hohepa, & Lloyd, 2007).

Additionally, the study reports the effect sizes of the five dimensions, ranging from a small effect (*Ensuring an Orderly and Supportive Environment*; *Establishing Goals and Expectations*; and *Strategic Resourcing*) to a moderately large effect (*Planning, Coordinating and Evaluating Teaching and the Curriculum*) and finally to a large effect (*Promoting and Participating in Teacher Learning and Development*). When inquiring further into the dimensions with the greatest effects on student outcomes (*Planning, Coordinating and Evaluating Teaching and the Curriculum* and *Promoting and Participating in Teacher Learning and Development*), it could be

inferred that these two dimensions involve the highest levels of principal-teacher interdependence. This isn't too surprising, however, since research has clearly established that principals work indirectly though teachers to affect student outcomes (Hallinger & Heck, 1996; Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003; Hargreaves & Fink, 2012). Yet, this inference is noteworthy in the advancement of PSTPN in that Robinson's findings continue to reinforce the importance of healthy principal-teacher relationships. When examining these two dimensions of leadership more closely, we see their contributions, limitations, and compatibility with PSTPN.

The leadership dimension, *Planning, Coordinating and Evaluating Teaching and the Curriculum*, is characterized by the level of a school leader's personal involvement in planning, coordinating and evaluating teaching and teachers. The study found that principals in higher performing schools work in conjunction with teachers, actively overseeing and coordinating the instructional program (Robinson, Hohepa, & Lloyd, 2007). These ideas, upon comparison, are similar to those of shared-instructional leadership (Heck, Larsen, & Marcoulides, 1990; Marks & Printy, 2003). Along those lines, Robinson and colleagues (2007) endorse three main theoretical mechanisms at work in this particular dimension: 1) the presence of coherence and alignment, 2) the observation of teaching and feedback, and 3) the use of data for the purposes of improvement. The last two mechanisms, Robinson and colleagues note are most likely explained through the promotion of teacher self-regulation. Even though most research on self-regulation is concerned with students, it is assumed that leaders who know how to promote student regulated learning could apply the same principles to teacher self-regulation and organizational learning (Robinson, 2002).

Collectively, all three of these mechanism, especially those fostering self-regulation, are facilitated through principal-teacher interaction. Naturally, we understand that interactions, whether formal or informal, consist of conversation or talk. While Robinson identifies important theoretical mechanisms involved in this particular leadership dimension, the application of such mechanisms for leadership practice continues to goes unrecognized. How do principal practically support teacher self-regulation? What does principal involvement in planning, coordinating and evaluating teachers look like? These questions continue to go unanswered. As previously identified, the aim of this study is to provide greater application for effective leadership practice by advancing a way to measure teacher perceived principal support. By identifying a mechanism by which principals could practically facilitate and nurture principal-teacher relationships, the theoretical ideas advanced by Robinson could be more effectively carried out.

In addition, looking at the leadership dimension with the largest effect on student outcomes, *Promoting and Participating in Teacher Learning and Developmen*t, the same comparisons and limitations are true. Similar to the dimension, *Planning, Coordinating and Evaluating Teaching and the Curriculum*, this dimension is contingent upon regular principal-teacher interaction. Within this dimension, Robinson, Hohepa, and Lloyd (2007) explain that a principal can participate with his or her staff as the leader, the learner, or both, and that participation is possible within both formal school settings (staff meetings or professional development) and informal settings (discussion with teachers about specific teaching problems or conversations in the hallway or lunch room). Because Robinson and colleagues (2007) found this dimension

to have on average a significantly large effect size (0.84), it is deserving of considerable attention and focus. Further, the potential of this leadership dimension begs the question of what might account for its power.

Robinson gives two potential reasons for why a school leader's promotion and participation in teacher learning and development could explain such influence on student outcomes. The first being that the extent to which a leader actively promotes and participates in teacher development could be an indicator of their focus on teacher quality and the quality of teaching (Robinson, Hohepa, & Lloyd, 2007). This focus is significant because teaching quality has been found to have the largest system level effect on student outcomes (Mujis & Reynolds, 2010; Nye, Konstantopoulos & Hedges, 2004). The second possibility is that school leaders who actively participate with teachers are more aware of the challenges their teachers are facing. In response, principals can provide informed teacher support in effort to enhance teacher and student learning (Robinson, Hohepa, & Lloyd, 2007). Thus, school leaders who are not actively promoting and participating in teacher learning are limited in their ability to influence students. To this point, Hallinger and Heck (1996, 1998) have demonstrated that effective principals work indirectly through teachers to create optimal school conditions where teachers can be most effective with students.

Yet, if principals do not know the personal and professional challenges their teachers are facing, they cannot make the necessary changes to the school environment in order to properly support their teachers. Further, if principals do not know their teachers, they cannot effectively manage teacher quality or instructional quality because they will not be able to individually target areas of improvement. Robinson's work

helps identify the importance of leader promotion and participation in teacher learning and development, however it raises multiple questions: How can school leaders practically promote healthy relationships with their teachers, focus on teaching quality, or understand the personal and professional challenges their teachers are facing?

This study sets out to answer these questions by advancing PSTPN as a means of facilitating intentional principal-teacher interactions. It is hypothesized that meaningful information can be derived from intentional conversations central to PSTPN, which could in turn have significant effects on teacher well-being, motivation and development towards improvement. However, before diving into the potential of PSTPN, first an acknowledgement of Robinson's contribution to school leadership must be made, and also an exploration of Leithwood and colleagues' work on leadership pathways.

Robinson and colleagues work on leadership dimensions is noteworthy in that it helps shift the focus of educational research towards a more thorough understanding of influential leadership practices and processes. The dimensions and their corresponding explanations break down the process of leadership in a way that is more beneficial to school practitioners. Yet, despite attempting to better describe and explain what it is that successful leaders do, the five leadership dimensions are still quite broad and abstract. Along those lines, Robinson acknowledges the limited number of available studies testing the relationship between the quality of school leadership practices and their effects on student learning and school outcomes. Thus, there is great need for further research explaining what it is that successful school leaders do, and how they do it.

Leadership Pathways

Toward this end, Leithwood, Patten, and Jantzi (2010) introduce a pathways approach to school leadership, which assumes leadership to be the exercise of influence and examines the indirect effects of school leadership on student learning. To improve student learning, this conception of leadership includes four "Paths" along which the influence of school leadership flows. The four distinct pathways include: Rational, Emotions, Organizational, and Family Paths (Leithwood et al., 2010).

Each of the paths recognize school-level variables hypothesized to increase student learning on account of school leadership influences. For example, the Rational Path identifies the variables, *Academic Press* and *Disciplinary Climate,* as particularly consequential in the improvement of student learning (Leithwood et al., 2010). In order to explain how a principal can increase a school's academic press, Leithwood and colleagues (2010) look to a number of studies which have designated targeted school leadership practices to improve academic press (e.g., Alig-Mielcarek, 2003; Jacob, 2003; Jurewicz, 2004). Some of those practices include: monitoring and providing feedback on the teaching and learning processes, promoting school-wide professional development, being open, supportive, and friendly, and clarifying shared goals about academic achievement.

While it is easy to see how each of these practices could hypothetically influence increased academic press, what is less clear is the mechanism a principal could employ in enacting these practices in their day-to-day interactions with teachers. For example, the leadership practice of being open, supportive, and friendly is clearly important, however the study fails to explain how a leader can exercise these behaviors.

In order for leader practice to be most effective and influential, a clearer pathway is needed.

A similar limitation of the pathways approach to school leadership applies to both the Emotions Path and the Organizational Path. The Emotions Path is highly interdependent with the Relational Path and includes the "feelings, disposition, or affective states of staff members (both individually and collectively) about school-related matters" (Leithwood et al., 2010). Leithwood and colleagues (2010) hypothesize that *collective teacher efficacy* (CTE) and *teacher trust in colleagues, students and parents* are equally responsible for the amount of variation found in student achievement as explained by the Emotions Path of school leadership. In order to promote positive effects on CTE, the authors suggest that school leaders offer individualized support to teachers by "showing respect for individual staff members, demonstrating concern about their personal feelings, maintaining an open door policy, and valuing staff opinions" (Leithwood et al., 2010). Again it is clear how these principal practices could in theory contribute to the improvement of both individual and collective teacher efficacy, but still a specialized mechanism of principal behavior along the Emotions Path is lacking.

Furthermore, the Emotions Path specifies the necessity of teacher trust in colleagues, students and parents, but doesn't particularly include teacher trust in the principal. Despite this omission, Leithwood and colleagues (2010) do allude to recent evidence identifying principal leadership as a critical contributor to the formation of trust among teachers, parents, and students (e.g., Tchannen-Moran, 2001; Bryk & Schneider, 2003). However, less attention is given to the requirement of principal-

teacher relational trust. This is problematic because principals fundamentally work though teachers to enact organizational change and influence student learning (Hallinger & Heck, 1996; Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003; Hargreaves & Fink, 2012). The formation and maintenance of trust between principals and teachers cannot be ignored, and must be better understood. Thus, this study prioritizes the principal-teacher relationship as being foundational to the work being done in schools.

Lastly, the Organizational Path of school leadership hypothesizes that the amount of *instructional time* and the quality of *professional learning communities (PLCs)* are significant indicators of the variation of student learning (Leithwood et al., 2010). The Organizational Path explains how school structures, policies and cultures help to frame the relationships and interactions among organizational members. Within this pathway, the major role of principals is to buffer and protect teachers' time (DiPaola & Tschannen-Moran, 2005, Crow & Weindling, 2010) and to initiate and support effective PLCs (Mitchell & Sackney, 2006; Oliver & Hipp, 2006). Within this context, Wahlstrom and Louis (2008) describe effective principal behavior as "quiet support, rather than bold, visibly transformational action" (p. 483). Furthermore, Tschannen-Moran (2009) characterizes principal behavior that is responsive to the success of PLCs as being supportive and personal, rather than directive and bureaucratic. However, in order to best explain how school leadership influence flows along the organizational path, a question must be answered. What types of school leadership behavior could teachers perceive as supportive, protective, non-threatening, and professional?

To its credit, the pathways approach to school leadership identifies important school-level variables and leadership practices, which are all hypothesized to improved student learning. Further, the recognition of specific channels for school leadership opens the door to a clearer understanding of the various paths leadership influence can rationally flow. Yet, the pathways themselves and the leadership variables identified within them are still too nonspecific. They lack the specification of explicit mechanisms grounded in theory by which school leaders can work through teachers to influence student outcomes. In order to more fully realize the influence of leadership pathways on student and school outcomes, it is essential to emphasize the primacy of effective principal-teacher relationship, and specifically the potential of principal-teacher interactions and conversations. Yet, to my knowledge no study has attempted to explain how school leaders can initiate, cultivate, and maintain healthy principal-teacher relationships though intentional needs supportive interactions and conversations.

Even though we know much about the responsibilities and tasks of school principals in leading improvement, we know very little about the substantive content of effective leadership conversations (Darling-Hammond et al., 2007; Hallinger & Heck, 1996; Horng et al., 2010, Lowenhaupt, 2014). Addressing the limitations of leadership dimensions, leadership pathways, shared-instructional leadership, and transformational leadership may be as simple as bringing specification to how principals talk with teachers and what they talk about. Conversation is not top-down directive, it's two-way. It allows for the conveying and the reception of ideas, feelings, and opinions. Conversation is also not bureaucratic, it's intimate, personal, and promotes openness and sharing. Still, no clear framework exists to study the nature of generative principal-

teacher interactions. To further establish the functional significance of conversation within the practice of school leadership, the idea of leadership as conversation is advanced to help conceptualize PSTPN and to establish a clearer mechanism and pathway for leadership influence.

Leadership As Conversation

The role of the school principal is essential to school improvement (Horng et al., 2010; Lortie, 2009; Goldring, Huff, May, & Camburn , 2008; Spillane, Camburn, & Stitziel Pareja, 2007). Yet, principals juggle multiple leadership roles, acting as instructional leaders (Hallinger, 2005; Goldring et al., 2008), vision-setters (Seashore Louis et al., 2010), coalition-builders (Lortie, 2009), and site managers (Goldring et al., 2008; Horng et al., 2010). To a certain degree, effectiveness within each of these roles requires principals to focus their practice on relationship-building, communication, and mediation (Lowenhaupt, 2014), all of which are fundamentally facilitated by conversation. Peterson and Kelley (2002) view effective principal practice as, "communicat(ing) a vision through their work, which means finding ways to make meaning out of the endless stream of activity in a principal's workday" (p. 259). Essentially, as a school principal, to lead apart from conversation would be similar to trying to drive a car without tires. There may be a destination, but it is going to be tough to get there. In fact, Mehan (1983) and Gronn (1983, 1984) argue that language is fundamental to the leadership of school organizations. Thus, leadership as conversation seeks to explain and establish the idea of administration as "fundamentally a discursive practice" (Riehl, 2000, p. 71).

School administration necessitates interacting with various stakeholders: parents, teachers, students, community partners, ect. Interactions with stakeholders, by nature, necessitate some type of conversation or communication. In fact, it is communication that supports the maintenance of these relationships and aids school leaders in navigating complex, and often competing agendas among role groups (Rallis & Goldring, 2000; Peterson & Kelley, 2002; Lortie, 2009; Kowalski, 2010). Because principals fundamentally work through teachers to enact organizational change and influence student learning (Hargreaves & Fink, 2012; Leithwood et al., 2010, Seashore Louis et al., 2010), the particular significance of principal-teacher interactions and the ensuing conversation cannot be underestimated and constitutes the need for research.

Lowenhaupt's (2014) rhetorical analysis identifies talk as the key means of interaction between school principals and their staff. While nearly every prescribed leadership practice or theory (i.e. transformation leadership, shared-instruction leadership, leadership dimensions, leadership pathways, ect.) involves principal-teacher interaction, many studies fail to address the interaction explicitly. As demonstrated throughout this literature review, the utility and implementation of many prominent leadership concepts are often limited in practice by the negligible amount of attention given explicitly to the interactive nature of principal-teacher relationships and further by the lack of specification toward explicit mechanisms by which leaders can influence those relationships. Because almost every interaction is mediated by conversation, this study suggest that the recognition of leadership as conversation provides the missing conceptual link to the development of PSTPN and ultimately could influence the effective implementation of other prominent school leadership models.

Leadership as conversation is derived from Groysberg and Slind's (2012) model of leadership called organizational conversation. Organizational conversation is the product of a two-year study of executive leaders and professional communicators across many diverse organizations, both domestic and international. To date, Groysberg and Slind have interviewed nearly 150 people at more than 100 different organizations. Throughout the interview process, participants continued to mention, both implicitly and explicitly, their efforts to "have a conversation" with employees or to "advance the conversation" within their organizations. Based off their findings, Groysberg and Slind came to the conclusion: instead of commanding orders from the top down, the most effective leaders of today actively engage with their employees in ways that resemble an ordinary person-to-person conversation. Further, they found that the practice of organizational conversation helped to promote cultural norms within the organization, allowing for the development of a *conversational sensibility* (Groysberg & Slind, 2012).

Organizational conversation explains that when leaders talk with employees in conversation, and not simply to them, employees respond with higher levels of engagement, flexibly, and alignment to the organization's mission (Groysberg & Slind, 2012). Further, a culture of conversational sensibility allows a company to grow larger and more complex while still functioning in many ways like a smaller company. Even though Groysberg and Slind's research is geared toward the business sector, much can be applied to education.

By applying the principles of leadership as conversation toward the conceptualization of PSTPN, PSTPN has the potential to transform school organizations by promoting a culture of conversational sensibility between principals and teachers.

Similar to Marquardt's (2005) research on the promotion of a culture of sharing and questioning, a school culture of conversational sensibility could allow for greater interdependence and cooperation among principals and teachers. Much like large companies, schools are very complex organizations with distinguished levels of bureaucracy. A culture of conversational sensibility could help to draw in the boundaries of the school organization, making it feel smaller, more intimate and personal. Further, in organizations where leaders intentionally talked with employees and established conversational sensibility, employees responded by being more engaged, flexible, and aligned to mission. It is hypothesized that if principals intentionally engaged with teachers in constructive needs supportive conversations characteristic of PSTPN, teachers would respond similarly, experiencing greater personal and professional well-being, motivation, and development toward improvement.

Interactions and conversations between principals and teachers are happening every day in schools. However, simply interacting with teachers in conversation for conversation sake is meaningless, an inefficient use of limited time, and could potentially be more harmful than helpful. While most leaders would argue they know how to have a conversation, the knowledge and skills required to have conversations from which meaningful information can be derived is less certain. In order to give meaning and value to leadership conversations, there must an identifiable outcome to drive the content. This study suggests that outcome be the fulfillment of teacher psychological needs. Further, as Robinson, Hohepa, and Lloyd (2007) argue, content must be built upon a proven conceptual and theoretical foundation. This study applies

the tenets of organizational conversation and self-determination theory toward intentional leadership behavior. Finally, in order to assess the effectiveness of needs supportive conversations as a viable leadership practice, an instrument must be developed to measure individual teacher perception so that the concept can be tested. This final need addresses the central purpose of this study, the advancement of a new construct of leadership behavior.

Despite research identifying the role significance of the school principal, as well as the influence of language as a critical leadership practice, no clear framework exists to study the influence and effectiveness of generative principal-teacher interactions and conversations (Riehl, 2000; Lowenhaupt, 2014). To this end, this study utilizes Groysberg and Slind's (2012) organizational conversation and Deci and Ryan's (2002, 2016) self-determination theory as conceptual and theoretical frameworks to define a type of intentional principal-teacher interaction that emphasizes the potential of conversation to support teacher psychological needs and to activate the inner determination of teachers to excel. Thus, by applying the tenants of self-determination theory to intentional principal-teacher social interactions, namely conversations, Principal Support of Teacher Psychological Needs (PSTPN) is advanced as a new construct of leadership behavior. As such, PSTPN is understood to be a global measure of the degree to which teachers experience their interactions and conversations with their principal, both formal and informal, as being needs supporting.

PSTPN does not advance another leadership model (e.g. transformational, instructional, shared- instructional, ect…), rather, PSTPN should be viewed primarily as a mechanism of leadership practice and a culture-building agent that delves into the

nature of healthy principal-teacher social exchanges. In fact, PSTPN is complementary to almost any existing model of school leadership by offering a distinct mechanism by which the purposes of these models could be more effectively employed. In the next section, the conceptual foundation for PSTPN is established by utilizing Gorysberg and Slind's organizational conversation framework and Deci and Ryan's self-determination theory.

Chapter 3: Conceptual Framework

Principal Support of Teacher Psychological Needs

Influence and persuasion are two core actions of effective leaders (Copeland, 1942; Calder, 1977; Pfeffer, 1977). Lortie (2009) argues that the ability of a leader to influence or persuade emerges through interactions that appeal to the values, needs, motivations, and beliefs of the individuals charged with making the organization functional. While it is known that interactions between school principals and teachers, both formal and informal, can have considerable influence and persuasion over opportunities for school improvement and teacher learning (Leithwood, Patten, & Jantzi, 2010; Leithwood, Day, Sammons, Harries, & Hopkins, 2006), less is known about how leadership influence can be wielded though principal-teacher interactions and conversations. Thus, PSTPN provides a lens to more clearly understand the ability of intentional leadership conversations to influence teacher well-being, motivation, and development.

It is important to note that PSTPN does not emphasis the non-verbal dynamics of conversation, such as tone, inflection, or power, rather the emphasis of PSTPN is on the intentional nature and conversational substance of needs supporting principal-teacher interactions. While much can be learned from the study of non-verbal conversation (Miller, 1988; Pickering, 2001; Levinson et al., 1997), transactional analysis (Berne, 1977, 2011) or critical discourse analysis (Fowler et al., 1979; Fowler, 1996; Hodge & Kress, 1993; Rogers et al., 2005; Rogers, 2011), the focus of PSTPN is not so much on how principals talk but on why and what principals should communicate. In doing so, PSTPN begins to unlock the largely untapped potential of

effective leadership conversations. This focus is not to discredit the non-verbal components of conversation, which are important and most certainly play a role in the overall effectiveness of PSTPN, however the aim of this particular study is to isolate and explain the underdeveloped ability and nature of intentional leadership conversations.

Thus, PSTPN should be viewed primarily as a mechanism of relational engagement which facilitates performance improvement. In doing so, PSTPN advances a concept that frames effective principal-teacher interactions around the psychological needs of teachers and explores the conversational processes capable of igniting teacher personal and professional well-being, motivation, and development. Informed by self-determination theory, PSTPN is advanced as a new construct of school leadership behavior, which is defined by the relational engagement of teachers through intentional conversations centered on supporting teacher autonomy, competence, and relatedness in the workplace. As a measurable construct, the PSTPN scale is understood to be a global measure of the degree to which teachers experience their interactions and conversations with their principal as being needs supporting. Conceptually, PSTPN is developed through the use of Gorysberg and Slind's organizational conversation framework and Deci and Ryan's self-determination theory.

Deci & Ryan's (2002, 2016) self-determination theory posits that all humans have inherent psychological needs—the needs for autonomy (deCharms, 1968; Deci & Ryan, 1985), competence (Harter, 1978; White, 1963), and relatedness (Baumeister & Leary, 1995; Reis, 1994). Together, these three specified needs have been found to be "essential for facilitating optimal functioning of the natural propensities for growth and

integration, as well as for constructive social development and personal well-being" (Ryan & Deci, 2000b). Through features of the environment, these needs are either supported or thwarted. PSTPN attempts to explain that through intentional conversation, school leaders can effectively influence teachers towards school effectiveness by being intentional about supporting teachers' needs.

At its fullest potential, humanity is curious, vivacious, and self-motivated (Ryan & Deci, 2000b). When applying the theory to the school environment, SDT would suggest that teachers are at their best when they are inspired, self-regulated, striving to learn, eager to master new skills; and able to apply their talents responsibly (Ryan & Deci, 2000b). Yet, the complexity of the school organization and the complex nature of teaching, has chronically left teachers feeling alienated and marginalized (Lortie, 1975; Labaree, 2000; Grossman, Hammerness, & McDonald, 2008; Van Maele, Forsyth, & Van Houtte, 2014). Ryan & Deci (2000b) warn that alienation can leaded to diminished human spirit and resistant to growth and responsibility. Principal preparation programs do not typically inform school leaders of the underlying sources of teacher psychological needs, let alone provide training in how to best support them. By identifying a culture-building agent that delves into the nature of healthy principal-teacher social exchanges, PSTPN has the potential to bring awareness and knowledge to school leaders in how to utilized effective leadership conversations to positively influence the school environment by igniting personal and professional well-being, motivation, and development.

School leadership processes, such as evaluation feedback, vision setting, or coaching, do not explicitly identify objects of conversations that give meaning and

structure to knowledge creation and teacher wellbeing. PSTPN does; it frames principal-teacher interactions around instances which support teacher psychological needs by features of the school environment and/or leadership speech and behavior. In this regard, PSTPN distinguishes itself from other leadership practices in that it specifically targets the potential of intentional leader behavior and the substance of principal-teacher conversation, accounting for much of principal-teacher interactions. By establishing the elements of supportive principal-teacher conversations and interactions, Gorysberg and Slind's (2012) organizational conversation framework and Deci and Ryan's (2000; 2002) self-determination theory provide the conceptualization of PSTPN. The intentional focus of organizational conversation advances the elements of conversation which have consequence for promoting a culture of psychological needs supporting behavior, and SDT provides the theoretical lens through which the needs supporting function of conversation can be explained.

Organizational Conversation

There appears to be a shift in the leadership dynamics of organizations today. The directive, top-down leadership style of 20th century management is not well suited with the rising generation of workers. In an age of instant communication, information flows to and from people at lightning speeds. As such, a leader's ability to engage and connect all members of an organization has never been greater. To better understand this shift in organizational culture, Groysberg and Slind's (2012) embarked on a two-year study of executive leaders and professional communicators, interviewing roughly 150 people at over 100 global organizations. Throughout the interview process,

participants in the study continuously mentioned their efforts to “have a conversation” with employees or to “advance the conversation” within their organizations.

Based upon their findings, Groysberg and Slind (2012) argued for a new form of corporate communication, one that is more dynamic and personal. Most importantly, one that is conversational. Using the examples and insights collected throughout the research process, they arrived at this conclusion: instead of commanding orders from the top down, the most effective leaders of today actively engage with their employees in ways that resemble an ordinary person-to-person conversation. From here, a new model of leadership was born, organizational conversation.

Organizational conversation contains four elements of interpersonal conversation: intimacy, interactivity, inclusion, and intentionality. In the development of Principal Support of Teacher Psychological Needs, these elements of interpersonal conversation serve as the vehicle for creating and maintaining effective principal-teacher relationships. Most importantly, the intentional nature of organizational conversation helps to direct the purpose of PSTPN by emphasizing the elements of needs satisfaction, in turn promoting teacher personal and professional well-being, motivation, development. In order to understand the function of organizational conversation in the conceptualization of PSTPN, the four elements must be further defined and broken down.

As school leaders attempt to create an environment of organizational conversation in their schools, it isn’t entirely necessary for leaders to focus on all four elements at once. Naturally these elements tend to reinforce one another, coalescing to form a coherent process. Particularly, the first three I’s (intimacy, interactivity, and

inclusion) are foundational in explaining how school leaders can promote and maintain healthy principal-teacher relationships.

Intimacy initiates the cycle of organizational conversation by shifting the focus of the organization from top-down direction to bottom-up exchange (Groysberg & Slind, 2012). Within the school environment, intimacy helps to tear down the bureaucratic walls between principals and teachers, enabling closeness and the formation of trusting principal-teacher relationships. Principals can engender intimacy by getting transparent with teachers, sharing personally, and being attentive to what teachers are saying and doing. In getting close, the focus should not necessarily be on physical proximity so much as mental or emotional proximity. To this point, Groysberg and Slind (2012) propose that leaders develop intimacy by gaining trust, listening well, and getting personal with their followers.

In order to promote intimacy, PSTPN is characterized by personal, authentic conversation where principals seek to earn the trust of those who work under their authority (teachers). In fact, trust is essential to the formation of relational intimacy and the overall effectiveness of PSTPN. Intimacy depends on trust, and trust depends on intimacy. The formation of trust emerges out of the interactions and social exchanges between principals and teachers that reinforce the competence, benevolence, openness, honesty, and reliability of the other party (Forsyth et al., 2011; Tschannen-Moran, 2014a). Practically for a school leader, this might be as simple as consistently greeting teachers in the morning, having lunch with a teacher in his/her classroom, or sharing vulnerably from their own personal insecurities, struggles, and/or successes as a leader.

Herb Kelleher, the beloved CEO of Southwest airlines, was the master of developing intimacy by meeting his employees where they were. It was not unusual to find Kelleher visiting the maintenance facilities early in the morning, putting on a pair of overalls to help clean a plane, or missing a flight because he was wrapped up in conversation with a Southwest employee. In fact, he was so effective at building intimacy thought the organization that once after a minor surgery, he received over 3,000 cards and gifts from Southwest employees (O'Reilly & Pfeffer, 1995). As a school leader, developing intimacy is essential to PSTPN because it enables the formation of healthy interpersonal relationships with teachers. Further, intimacy is foundational to the promotion of both interactivity and inclusion.

A leader's pursuit of interactivity reinforces intimacy, building upon the formation of trusting interpersonal relationships (Groysberg & Slind, 2012). School leaders can encourage interactivity within the school building through the promotion of dialogue. Groysberg and Slind (2012) explain that in organizational conversation, leaders talk with employees, not just to them. This interactivity allows for open, fluid conversation, as opposed to closed and directive monologue. The sound of a principal talking is clearly not conversation, whereas a personal conversation is defined by the "exchange of comments and questions between two or more people" (Groysberg & Slind, 2012). While many school principals are good at talking, they might not be as good at conversation.

Interactivity within a school organization promotes both "conversational sensibility" and a "culture of questioning" (Marquardt, 2005). In this environment, a truly interactive culture can flourish by creating a welcomed space for dialogue. This is

accomplished by shifting the values, norms, and behaviors of both principals and teachers. PSTPN helps to explain how principals can facilitate this shift by emphasizing the importance of initiating and cultivating interactive dialogue with teachers. Schools, like other organizations, are experiencing a generational shift in the labor market. As millennials move into teaching and leadership roles within schools, they expect both peers and authority figures to interact with them with them by communicating in a "dynamic, two-way fashion" (Groysberg & Slind, 2012). PSTPN helps bring awareness of this impending shift to school leaders, equipping them to be successful in 21st Century school leadership.

Finally, inclusion plays a critical role in addition to the first two I's by facilitating the engagement of all employees in intimate and interactive conversations. Groysberg and Slind (2012) explain that while intimacy is fundamentally a leader-driven process, inclusion emphasizes the role employees play in organizational conversation. Further, by offering employees the opportunity to share their own ideas and beliefs, inclusion extends the two-way dynamic of interactive dialogue. Looking to how this plays out in schools, when teachers feel included in the conversation, they are invited to share ownership of the discussion and empowered to act upon improvement strategies.

Groysberg and Slind (2012) explain how employees within inclusive organizations often take on new, important roles, acting as brand ambassadors, thought leaders, and storytellers. When employees feel included in the conversational process of improvement, their levels of emotional engagement and commitment are heightened (Groysberg & Slind, 2012). Within the school environment, the effects of inclusion are

similar to those of shared-instructional leadership. Instead of solely relying on the instructional expertise and leadership capacity of the school principal, inclusion allows for the creation of teacher driven content and improvement strategies. PSTPN, through needs supporting conversations, provides a distinct mechanism by which the ideas, contributions, and expertise of teachers in shared-instructional leadership can be more successfully implemented.

Intimacy, interactivity, and inclusion are similar to the extent that they all enable the flow of information and ideas within an organization. Intentionality, on the other hand, differs from the other three elements of organizational conversation. Intentionality brings a measure of closure to the processes of organizational conversation, allowing the leader to derive strategically relevant information from the dialogue (Groysberg and Slind, 2012). Intentionality is key to the conceptualization of PSTPN because it addresses the "what" of conversation. Conversation that is intentional is not aimless, but has a purpose, an outcome, and is much more rewarding and influential (Groysberg & Slind, 2012). If a conversation between a principal and teacher is intentional, it will not be aimless. Both the principal and the teacher will have some sense of what they hope to accomplish through the interaction.

In order to be influential and persuasive, intentional interactions typically have some type of intent whereby the language used and the information exchanged will be strategic. Without intent, a conversation can easily become sidetracked. The intentional nature of organizational conversation helps to confer order and sense making on the goals and objectives of the organization (Groysberg & Slind, 2012). In the conceptualization of PSTPN, principals are intentional in their conversations with

teachers by using language that is supportive of teachers' psychological needs. This directs the conversation towards actions and beliefs that are needs supporting.

Further, if intentional needs supportive conversations between principals and teachers are consistently being held, a simplification system, or mental model, for teachers and principals will most likely be established (Adams & Olsen, 2017). Honig and Hatch (2004) explain that simplification systems aid organizational actors by allowing the actors to filter information through conceptual cues that facilitate sense making and drive purposeful action. Thus, intentionality on the part of the school principal has tremendous potential to inform principal-teacher social exchanges by specifying strategic content and by directing purposeful principal behavior that teachers would perceive as being needs supporting.

As theorized, organizational conversation, through the influence of dialogue, underscores the importance of conversation as a medium for the leadership practice of a school principal (Groysberg and Slind, 2012; Gronn, 1983; Lowenhaupt, 2014). The evidence indicates that school leaders can be more intentional in their interactions with teachers by utilizing conversation as a means to promote intimacy, interactivity, and inclusion throughout the school organization. Yet, even organizational conversation is limited in its effectiveness without a theory guiding the intentional process of leadership conversations. Further, the complexity of teaching and learning necessitates an adaptive theory and process. In the conceptualization of PSTPN, Deci & Ryan's (2002, 2016) self-determination theory (SDT) provides the theoretical foundation to guide the adaptive process of school leadership conversations.

Self-Determination Theory

Through the identification of intentional objects of empowering leadership conversations, self-determination theory provides a conceptual lens to better explain how intentional conversation functions in the support of teacher psychological needs. SDT advances the notion that psychological needs are an innate component of the human condition (Deci and Ryan, 2016). At its core, the theory embraces the belief that human growth and development follow an integrative process through which aspects of the social world interact with innate biological tendencies igniting, or undermining, healthy development and wellbeing (Deci and Ryan, 2002, 2016). Environments best supporting this process are those meeting the three fundamental psychological needs of self-determination theory—the need for autonomy, competence, and relatedness (Deci and Ryan, 2002, 2016).

Together, these three psychological needs serve as regulatory mechanisms for positive adjustment and personal well-being (Deci & Ryan, 2016). Further, within the school setting, school leaders have the ability to steer the environment toward the direction of needs-supporting or needs-thwarting. By utilizing the untapped potential of intentional leadership conversations, PSTPN provides a steering mechanism for principals to use in cultivating needs-supporting interactions and conversations with their teachers. In doing so, SDT would maintain that teachers, experiencing higher levels of needs satisfaction from their interactions and conversations with their principal, would in turn experience greater personal and professional well-being, motivation, and development towards improvement.

Self-determination theory embraces the assumption that all individuals have a natural, or innate, tendency to cultivate a more developed and integrated sense of self (Deci & Ryan, 2002). There are, however, specific social-contextual factors that can either support or thwart this innate human tendency. The social-contextual factors under investigation in this study involve the interactions and conversations between principals and teachers that comprise either a needs-supporting environment/relationship or a needs thwarting environment/relationship. Deci and Ryan (2002) warn that environments undermining basic psychological needs stifle effective or healthy functioning. Within the context of schooling, therefore, teacher psychological growth, motivation, and integration in personality is not something that should be assumed to automatically occur, but rather teacher personal and professional development involves "…a dynamic potential that requires proximal and distal conditions of nurturance" (Deci & Ryan, 2002, p. 6). Applying this concept to principal-teacher relationships, we see the potential of needs supportive conversations to support the effectiveness of healthy teacher development toward increased personal and professional well-being and motivation.

Over time SDT has evolved and is now comprised of four mini-theories: cognitive evaluation theory, organismic integration theory, causality orientations theory, and basic needs theory (Deci & Ryan, 2002). Each of these mini- theories could be viewed as individual theories, yet together they each constitute a part of the complete framework of SDT. Cognitive evaluation theory is of particular interest in this study because it specifically addresses the effects of social contexts on intrinsic motivation. Intrinsically motivated people perform an activity because they find inherent

satisfaction from the task (Deci & Ryan, 2002). This type of behavior is one that is considered self-determined, where people engage freely in the activity because they are interested and find enjoyment (Eyal & Roth, 2011). Integral to this study is the use of needs supportive conversations toward activating teachers' intrinsic motivation, well-being, and development towards improvement.

As previously addressed in the literature review, the teaching profession has been historically marked by high levels of intrinsic motivation and commitment (Lortie, 1975; Ingersoll, 2003; Darling-Hammond, 2013, 2014; Watt & Richardson, 2008, 2014). Yet, to facilitate school improvement, policy makers continue to reinforce the notion that the use of externally regulated incentives and/or sanctions to bolster performance will motivate educators (Ryan & Weinstein, 2009; Harris & Harrington, 2015). Considering teachers' preexisting intrinsic motivation towards entering the teaching profession, as well as the complex nature of teaching and school effectiveness, (which is also adverse to controlled forms of regulation) the use of externally regulated controls seems particularly incompatible for supporting improvement in schools (Niemiec & Ryan, 2009; Eyal & Roth, 2011; Roth, 2014; Johnson, 2015; Ford & Ware, 2016).

Despite research revealing the failures and limitations of this narrow, outcome-driven approach, "high stakes" school accountability processes, formal teacher evaluation policies, and standardized curriculum mandates (all of which are forms of external or controlled regulation) are continually imposed on teachers and school leaders (Darling-Hammond, 2004; Fullan, 2010; Baker et al., 2010; Heck, 2000; Ravitch, 2011). To this end, there is considerable evidence associating the use of

external motivation (controlled regulation) with negative psychological consequences (Grolnick & Ryan, 1989; Ryan, Rigby, & King, 1993), and the use of intrinsic motivation (autonomous regulation) with positive psychological consequences, such as improved well-being, higher performance, and lower burnout (Baard, Deci, & Ryan, 2004; Gagné & Deci, 2005). In fact, evidence abounds revealing that the use of extrinsic regulation, such as "high stakes' rewards and/or sanctions, is ineffective in facilitating long-term meaningful change in individual behavior and well-being (Deci & Ryan, 1985; Deci, Koestner, & Ryan, 1999; Niemiec & Ryan, 2009; Ryan & Deci, 2000a, 2002; Ryan & Brown, 2005). Thus, PSTPN attempts to combat the debilitating effects of external regulation in schools by offering a means by which school leaders can foster teachers' personal and professional well-being, motivation, and development towards improvement.

Cognitive Evaluation Theory further describes contextual events or climates as containing informational aspects and controlling aspects, and that these aspects influence the perceived causality and competence of that event. The term functional significance is used to express the way in which individuals perceive events as being either informational or controlling (Deci & Ryan, 2002). Events that are perceived to be informational enhance intrinsic motivation while those that are perceived to be controlling undermine intrinsic motivation. In contrast to controlling contextual administrative tasks, such as formal teacher evaluation, this study suggests that the nature of needs supportive conversations would be perceived by teachers as informational as thus enhance teacher intrinsic motivation.

When analyzing the functional significance of conversation is supporting teachers' psychological needs, it is imperative to understand the capability of the three distinct facets of self-determination theory, competence, autonomy, and relatedness, toward influencing teacher well-being, motivation, and development. Cognitive evaluation theory (CET) suggests that the needs for competence and autonomy are integral in the promotion of intrinsic motivation (Deci & Ryan, 2002). As contextual events, such as praise, deadlines, or feedback are imposed upon teachers in conversation, the way in which these events are perceived by teachers will either support or thwart teachers sense of competence or autonomy.

Competence and Competence Support

Competence is defined as possessing the knowledge of how to master a subject or activity and the belief in oneself to apply that knowledge to achieve desired goals (Connell & Wellborn, 1991). It is often referred to as the need to experience mastery and is closely associated with self-efficacy. It is often marked by the development of a growth mindset as opposed to a performance mindset (Dweck, 2007). For teachers, this means they feel confident and capable in their ability to set, pursue, and achieve goals.

Thus, competence support is manifest in social contexts and structures which foster self-efficacy. A competence-supportive environment is one in which teachers are able to set optimally challenging goals, experience mastery, and receive positive and constructive feedback (Ryan & Deci, 2000b). Teachers perceive they are celebrated for personal and professional improvement and learning rather than for merely better performance or evaluation scores (Cox & Williams, 2008). Deci & Ryan (2002) note that intrinsic motivation tends to increase when an event is seen to increase one's

perceived competence. Likewise, when an event reduces perceived competence, intrinsic motivation is decreased.

Competence-supportive conversation would center on evidence of effective teaching practices exhibited by the teacher. Additionally, competence-supportive language would seek to develop efficacy in teachers, allowing teachers to believe in their ability to master their craft. The initial items written to capture the competence-supportive nature of PSTPN include: *my principal challenges me to set professional goals; my principal celebrates my growth as an educator; my principal provides valuable feedback that helps me improve my teaching; my principal ask questions about my instructional practice that prompt me to think; my principal instills confidence in my ability to do my job well.*

Autonomy and Autonomy Support

Autonomy is defined as the perceived origin of one's own behavior (Deci and Ryan, 2002). It is to behave with a sense of volition, willingness, and congruence, where one fully endorses the behavior one is engaged in (Deci & Ryan, 2012). It is to operate out of an internal perceived locus of causality, i.e. the belief that outcomes are a result of the attitudes, choices, and actions of the acting agent (deCharms, 1968). When people experience autonomy, they demonstrate greater engagement, vitality, and creativity in their life activities and relationships (Deci & Ryan, 2012).

Autonomy support is manifest in the interpersonal and structural conditions which nurture self-motivation and self-regulation. Autonomy-supportive social contexts are marked by behaviors such as providing choice, encouraging self-initiation, acknowledging the perspective and feelings of others, and clarifying the relevance of

expected behaviors and desired outcomes (Assor, Kaplan, & Roth, 2002). The psychological need of autonomy has been shown to be thwarted in pressurized and controlling environments (Bartholomew, Ntoumanis, Ryan, & Thogersen-Ntoumanis, 2011).

As noted by Deci & Ryan (2002), when a contextual event prompts a change in perception towards a more external locus of causality, intrinsic motivation is thwarted. Furthermore, intrinsic motivation will be increased when an event prompts a change in perception towards a more internal locus of causality. As a result, it isn't necessarily the external action or expression that diminishes intrinsic motivation, it is more in the way that external event is perceived as influencing one's locus of causality (autonomy). For example, when a principal communicates or interacts with a teacher, it is important to frame the conversation or interaction in such a way that would influence or persuade teachers towards perceived autonomy support and towards a greater locus of control.

Autonomy-supportive conversations would be grounded in language encouraging self-motivation and self-regulation. Interactions would encourage teacher choice and acknowledge teachers' perspective and feelings. The aim of autonomy-supportive conversation is to foster a strong sense of agency, the belief that control over learning outcomes resides with the teacher. PSTPN items initially written to capture autonomy-support include: *my principal listens to my opinions and ideas; my principal explains the rationale behind decisions that are made; my principal trusts me to solve problems in the way I see fit; my principal tries to understand my perspective; my principal encourages me to be creative with my teaching.*

In the 1980s, Cognitive Evaluation Theory was elaborated to explain how the functional significance of an event can be significantly influenced by the interpersonal climate within which the events are administered (Deci & Ryan, 2002). From here, CET set out to further explain the significance of interpersonal relationships within the context of supporting or thwarting intrinsic motivation. Effective principal-teacher relationships are essential to this study and to the development of PSTPN.

We've established schools as complex, social organizations consisting of many interdependent relationships (Van Maele, Forsyth, & Van Houtte, 2014; Forsyth, Adams, & Hoy, 2011), and teaching as complex work (Labaree, 2000; Grossman, Hammerness, & McDonald, 2008; Van Maele et al., 2014). As such, cooperation, professional discretion, and interdependence are necessary to achieve effectiveness and success within schools (Floden & Clark, 1988; Cohen, 1988; Larabee, 2000. Apart from effective principal-teacher relationships, the functional significance of conversation in meeting teachers' needs for competence and autonomy would be diminished. Thus, equal attention must be given to fostering teachers' inherent need for relational support.

Relatedness and Relational Support

Relatedness is defined as a sense of belonging and connectedness to others in pursuit of a common goal (Ryan & Deci, 2000b). It encompasses the desire to feel secure in one's social environment and to feel worthy of love and respect (Connell & Wellborn, 1991). Relatedness binds together the needs of autonomy and competence. Secure relationships allow one to explore their environment with confidence, thus enhancing their feelings of competence and autonomy (Cox & Williams, 2008).

Relational support is manifest in interactions that produce a sense of acceptance, belonging, and security, where one feels like an integral part of a community. Relationally-supportive contexts are those in which teachers feel safe enough to take risks and build trusting relationships. Research on organizational trust, has shown that trusting relationships are characterized by honesty, openness, competence, reliability, and benevolence (Forsyth, Adams, & Hoy, 2011).

Relationally-supportive conversations focus on securing a sense of belonging and acceptance for teachers. Language fostering relatedness-support would communicate care and concern, in the cultivation of trust between the principal and teacher. PSTPN items initially written to demonstrate relational-support include: *my principal is someone I can depend on for support; my principal is someone I am able to be open with at school; my principal cares about me as a person; my principal makes me feel like I am part of a team; my principal is honest with me about what is really going on.*

Because no instrument exists by which to measure PSTPN, central to mission of this study, is the development of PSTPN as a measurable construct. Ensuring the adequate measurement of an abstract constructs is essential, and Hinkin (1998) warns that it is quite possibly the "greatest challenge to understanding the behavior of people in organizations" (p. 104). Further, Schoenfeldt (1984) stresses the importance of sound measurement saying: "The construction of the measuring devices is perhaps the most important segment of any study. Many well-conceived research studies have never seen the light of day because of flawed measures" (p. 78). To this point, a rigorous process is employed to establish reliability and validity in the development of the PSTPN scale.

Chapter 4: Method

Restatement of Purpose

The purpose of this study is to establish the foundation for a line of inquiry around Principal Support of Teacher Psychological Needs by (1) situating PSTPN within the broader leadership literature, (2) describing the role of conversation as a core and defining component of school leadership, (3) conceptualizing PSTPN by utilizing organizational conversation and self-determination theory, (4) developing PSTPN as a measurable construct, (5) empirically testing the validity and reliability of the PSTPN scale, and finally (6) providing initial evidence of the viability of PSTPN by examining the relationship of PSTPN with conditions that facilitate leader effectiveness. Within this chapter, the focus rests on describing the methods utilized for addressing the fourth, fifth, and sixth objectives of this study. Specifically, this entails outlining the empirical methods used to develop and test the measurement of PSTPN. To begin, the data collection procedures and data sources used for analysis are discussed.

Data Sources and Collection Procedures

Data were collected in the spring of the 2015-2016 school year in a large, urban district serving over 40,000 students in the Southwestern United States. The district's student body is approximately 31% African American, 29% Caucasian, 25% Hispanic, and 10% Asian or Native American. The average free-and-reduced lunch rate for students across the district is 77%. Schools were sampled based on their willingness to participate in a larger research study on school climate and capacity. Parents, students, teachers, and principals were surveyed for the overall research project, but for the purposes of this study, items on the teacher survey were used exclusively. All certified

teachers from 74 elementary and secondary schools in the district were sent an individualized electronic teacher survey created in Qualtrics via email. Teachers in the sample averaged approximately 13 years of teaching experience, with an average of a little more than 6 years in their current school. Additionally, approximately 10 percent were nationally board certified, and 82 percent were female (see Table 1).

Table 1. Teacher Demographic Information (2015-2016)

	Mean	SD	Min	Max
Years of Experience	13.20	9.32	1	30
Years in School	6.10	6.43	1	30
National Board	.10	.30	0	1
Female	.82	.38	0	1

Within each school, teachers were randomly assigned to one of two survey forms, with the PSTPN measure on faculty form B. Faculty trust in the principal, a construct used in the test for convergent validity, was also on faculty form B. Participation was voluntary. Teachers were given a two-week window to complete the survey. Overall, 920 usable teacher responses from 74 schools were received from faculty form B with a response rate of 82%. Once collected, survey results were uploaded into SPSS. Within SPSS, survey items underwent a five-step data cleaning process and factor analysis. Each teacher received an average individual PSTPN score by calculating the mean teacher item response. Finally, each teacher's average PSTPN score was aggregated to the school level to determine each school's average PSTPN score.

PSTPN Validation Procedures

Central to the mission of this study, a scale needed to be developed to measure Principal Support of Teacher Psychological Needs. Hinkin (1998) instructs that the development of a well-articulated theoretical foundation is key to successful item generation; it is a strong theoretical foundation that indicates the content domain for any new measure. As such, in the formation of the PSTPN measure, items reflecting the intentional needs supporting elements of principal-teacher conversations and interactions were grounded in self-determination theory.

Item Development

There are two main techniques used by organizational researchers in scale development, deductive, sometimes called *logical partitioning*, and inductive, also known as *grouping* (Hinkin, 1998; Hunt, 1991). Both techniques offer advantages and disadvantages. One advantage to the deductive approach in item generation is that it requires a thorough review of the literature, which is then used to develop a theoretical definition of the construct under examination. The definitions are in turn used as a theoretical guide in the development of items (Schwab, 1980). In the formation of PSTPN, a thorough understanding of self-determination theory existed, as well as empirically established definitions of the three domains. Thus SDT provided a sound theoretical foundation upon which to generate the initial set of items. In all, over 60 original items were written to reflect principal speech and behavior that could be perceived by teachers as being autonomy-supportive, competence-supportive, and relatedness-supportive.

For example, competence-supportive conversation would be centered on evidence of effective teaching practices exhibited by the teacher. Competence-supportive language would promote teacher self-efficacy and belief in their ability to master their craft. Autonomy-supportive conversations would be grounded in language encouraging self-motivation and self-regulation. Items would encourage teacher choice and acknowledge the perspective and feelings of teachers. Lastly, relationally-supportive conversation would focus on securing a sense of belonging and acceptance for teachers. Language fostering relatedness-support would communicate care and concern, as well as cultivate trust between the principal and teacher.

Establishing Construct Validity

Before empirically testing PSTPN as a measure of supportive principal behavior, a validation study was conducted to evaluate the construct validity of the Principal Support of Teacher Psychological Needs Measure. The current view of validity theory is constructed on the seminal work of Samuel Messick (1989, 1995), which emphasizes that all validity is assumed under construct validity. By definition, construct validity is the ability of a measure to yield truthful judgments about the object it purports to measure (Messick, 1989, 1995; Miller, 2008). Messick outlines six facets of construct validity—content, substantive, structural, generalizability, external (convergent), and consequential—although fundamentally these facets adhere to the same logic, "that validity exists to the degree that the measure represents the underlining theoretical construct and informs credible judgements about the phenomenon of interest" (Adams & Miskell, 2016; Messick, 1995; Cronbach & Thorndike, 1971). In the development of the PSTPN measure, construct validity was

assessed by examining content, substantive, structural, and external (convergent) validity. Additionally, a final empirical test was conducted to establish initial evidence in determining the potential of PSTPN as a viable leadership practice.

Content Validity

The validity study begins by assessing content validity. Content validity refers to the degree to which the items of the data collection instrument "are a representative sample of the universe of content and/or behavior of the domain being addressed" (Hopkins, Stanley, & Hopkins, 1990). In this case, the content domain being addressed is self-determination theory. Because there is no generally accepted quantitative index assessing the content validity of psychological measures, Stone (1978) indicates that professional judgement must be exercised in the validation of a measure. However, there are methods that examine the consistency of judgements in regard to content validity.

Thus, in order to establish content validity, the original bank of 60 items was submitted to a panel of experts, of which included educational researchers well-versed in self-determination theory. These experts vetted the questions, offering trimming suggestions, language substitutions, and item rephrasing. Additionally, the original items were pilot tested with 25 current and former teachers and principals. Using the technique employed by MacKenzie, Podsakoff, and Fetter (1991), pilot test participants were provided the items along with construct definitions and asked to match and rank items with the corresponding definition they felt most accurately represented each respective domain (i.e. autonomy-supportive, competence supportive, or relational supportive).

While no technique will completely guarantee that content validity has been demonstrated, I would maintain that the methods employed provide substantial evidence of "content adequacy" (Schriesheim et al., 1993; Hinkin, 1998). In all, the initial set of items underwent seven iterations before a final set of items were agreed upon. Thus, informed by self-determination theory, PSTPN is conceptualized as a second order factor, representative of the three distinct, yet related domains within SDT. In order to equally represent the three domains, the original PSTPN measure consisted of fifteen items; five items per domain (see Table 2).

Table 2. Principal Support of Teacher Psychological Needs (15 Item Survey)

In reflecting upon my formal and informal interactions and conversations with my principal, I feel he/she:

1. challenges me to set professional goals
2. celebrates my growth as an educator
3. provides valuable feedback that helps me improve my teaching
4. asks questions about my instructional practices that prompt me to think
5. instills confidence in my ability to do my job well
6. listens to my opinions and ideas
7. explains the rationale behind decisions that are made
8. trusts me to solve problems in the way I see fit
9. tries to understand my perspective
10. encourages me to be creative with my teaching
11. is someone I can depend on for support
12. is someone I am able to be open with at school
13. cares about me as a person
14. makes me feel like I am part of a team
15. is honest with me about what is really going on

Note. Initial PSTPN Measure. The survey consists of 15 items: questions 1-5 represent competence support, 6-10 autonomy support, and 11-15 relational support.

PSTPN is conceived of and measured as an individual teacher belief. In order to best capture individual teacher perception, a question stem was composed to help teachers situate each item within a consistent context. The provided question stem, as

seen in figure 1, is as follows: “In reflecting upon my formal and informal interactions and conversations with my principal, I feel he/she…”. Additionally, the scale utilizes a Likert response, ranging from Strongly Disagree (coded as 1) to Strongly Agree (coded as 6).

Substantive Validity

One of the main tasks of substantive validity addresses the need to move beyond content validity as demonstrated solely by professional judgement. Messick (1995) instructs that this is done by acquiring empirical evidence that emphasizes the “theoretical rationales for the observed consistencies in test responses…along with empirical evidence that the theoretical processes are actually engaged by respondents in the assessment tasks” (p. 745). Essentially, the substantive aspect of construct validity provides empirical evidence to the content aspect by validating response consistencies which reflect domain processes (Loevinger, 1957).

Smith (2001) suggests that Rasch measurement, a branch of Item Response Theory (IRT), can be used as an effective method in providing empirical evidence of substantive validity as well as establishing evidence of the reliability of the PSTPN scale. There are three general aspects of Rasch measurement, *model requirements and measurement properties, order of items and persons,* and *fit of the items and persons*. Further three main statistics are produced by Rasch model development: 1) item infit and outfit, 2) item difficulty, and 3) person, item, and model reliability. In order to assess observed consistency in responses, Smith (2001) maintains that substantive validity can be established by verifying the confirmation of the intended item hierarchy and the examination of person fit statistics. Fundamentally, this process explores the

extent to which each respondent perceives the item hierarchy in a similar manner to the majority of respondents.

Additionally, further analysis of the Rasch measurement statistics helped to examine the level of item difficult among the fifteen PSTPN items, as well as assess the predictability of responses. Ideally, a well-developed scale would have a wide range of easy to difficult items and an appropriate range of predictability among responses. As a result of the Rasch measurement process, the fifteen original PSTPN items were able to be trimmed down to nine (see Table 3). The software program Winsteps 3.80 was used to conduct the Rasch model of the PSTPN data.

Table 3. Principal Support of Teacher Psychological Needs (9 Item Survey)

In reflecting upon my formal and informal interactions and conversations with my principal, I feel he/she:

1. celebrates my growth as an educator
2. provides valuable feedback that helps me improve my teaching
3. instills confidence in my ability to do my job well
4. listens to my opinions and ideas
5. explains the rationale behind decisions that are made
6. trusts me to solve problems in the way I see fit
7. is someone I am able to be open with at school
8. cares about me as a person
9. makes me feel like I am part of a team

Note. Final PSTPN Measure. The survey consists of 9 items: 1-3 represent competence support, 4-6 autonomy support, and 7-9 relational support.

Structural Validity

Construct validity was furthered assessed by examining the structural validity of PSTPN. The structural aspect of construct validity evaluates the fidelity of the measure structure against the structure of the construct domain at issue (Messick, 1995). Messick (1995) cites Loevinger (1957) and Peak (1953) explaining that the measure "should be

rationally consistent with what is known about the structural relations inherent in behavioral manifestations of the construct in question" (p. 746). Thus, to examine the structural validity of the PSTPN measure, the internal structure of PSTPN should be consistent with what is known about the internal structure of self-determination theory. As such, PSTPN is hypothesized as a second-order factor consisting of the distinct, yet related dimensions of competence-support, autonomy-support, and relatedness-support (see Figure 1).

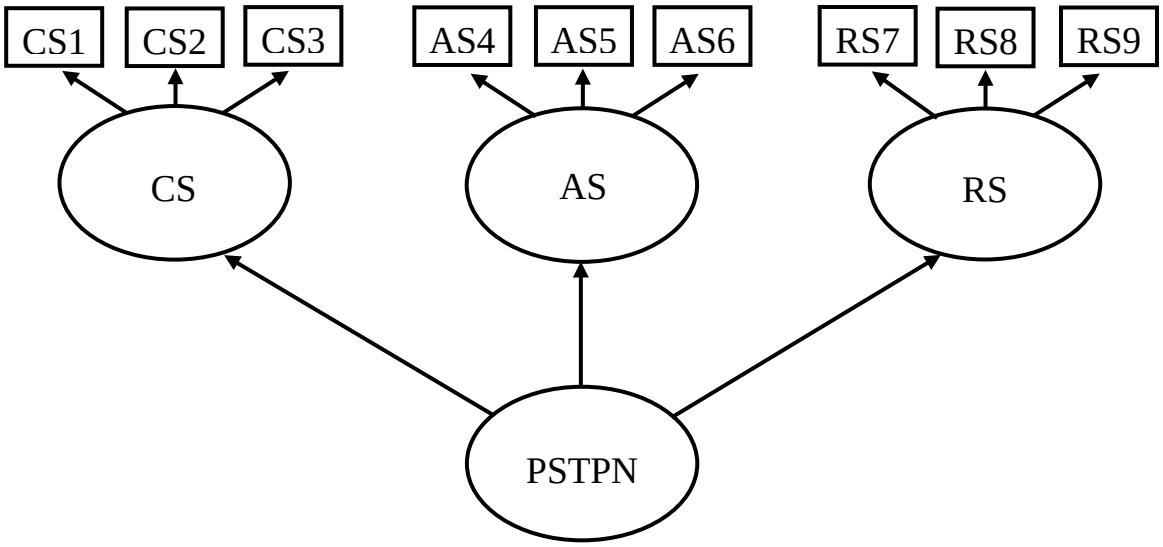

Figure 1. Hypothesized Second-Order Factor Model Specification of PSTPN. CS = Competence Support; AS = Autonomy Support; RS = Relatedness Support

To examine the structural validity of PSTPN, Confirmatory Factor Analysis (CFA) in AMOS 23.0 was used to test the factor structure of the scale. The purpose of a CFA is to confirm or disconfirm the hypothesized factor structure. A CFA was used because items linked to the three facets of self-determination theory were specified a priori. Alternative to a traditional exploratory approach, there are two advantages to building and testing a measurement model a priori. First, CFA models are guided by

theory. Therefore, sample data will produce empirical relationships that either support or dismiss the underlying logic of the model. Second, by testing different theoretical specifications of the observed and latent features of the construct, CFA is a useful tool for evaluating alternative model structure and fit (Thompson & Daniel, 1996). As such, this study used a comparative analysis to test the hypothesized model by comparing estimates against a first-order specification of Principal Support of Teacher Psychological Needs (see Figure 2).

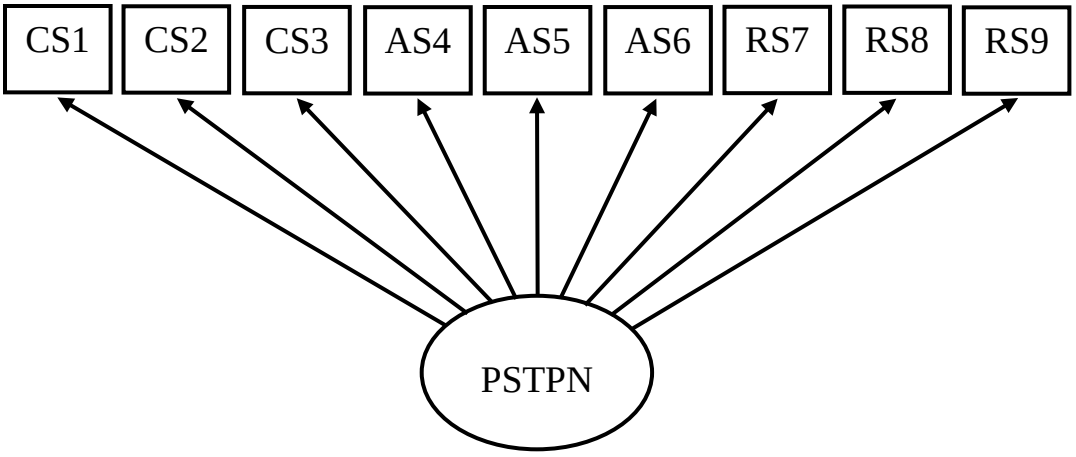

Figure 2. Alternative First-Order Factor Model Specification for PSTPN. CS = Competence Support; AS = Autonomy Support; RS = Relatedness Support

A model generating approach using maximum likelihood estimation was used in AMOS 23.0 to further establish structural validity. The first step was to build and test the second-order model with each of the three distinct facets represented. The second step was to build and test a first-order model with all nine items loading in PSTPN. This second step addresses the argument made by Moss (1995) that "construct validation is most efficiently guided by the test of plausible rival hypotheses" (p. 6-7). In order to evaluate the two competing models, fit indices, parameter estimates, and residuals were

used. The absolute fit index was the Root Mean Square of Approximation (RMSEA). Relative fit indices included Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI). To test the factor structure, fit indices were compared between the hypothesized model and alternative specification

Convergent Validity

Convergent validity is a form of external, criterion-related validity and examines the extent to which a scale is correlated with another measure that is designed to assess a similar construct (Hinkin, 1998). In order to garner further evidence of construct validity for PSTPN, convergent validity was established by correlating Principal Support of Teacher Psychological Needs with the measure faculty trust in the principal. Faculty trust in the principal measures the quality of relationships between faculty and the principal. Questions ask faculty about the support, openness, dependability, competence, and honesty of the principal. Higher levels of principal trust indicate faculty respect and trust in the leadership of the principal. Thus, PSTPN would appear to be theoretically related to Faculty Trust in the Principal in that trust undergirds any need supporting principal-teacher relationship. Trust is fundamental to PSTPN and relationship building whereas trust is a condition in which people find themselves vulnerable to others under conditions of risk and interdependence (Forsyth et al., 2011).

Faculty Trust in the Principal is a 6 item measure and sample items include: *The principal in this school typically acts in the best interests of teachers. The teachers in this school have faith in the integrity of the principal.* The measure utilizes a Likert

response, with ranges set from Strongly Disagree (coded as 1) to Strongly Agree (coded as 6). All 6 items on the faculty trust in the principal measure can be found in Table 4.

Table 4. Faculty Trust in the Principal

Item	Likert Scale
1. Teachers in this school trust the principal.	1 (strongly disagree) to 6 (strongly agree)
2. The teachers in this school have faith in the integrity of the principal.	1 (strongly disagree) to 6 (strongly agree)
3. The principal in this school typically acts in the best interests of teachers.	1 (strongly disagree) to 6 (strongly agree)
4. Teachers in this school can rely on the principal.	1 (strongly disagree) to 6 (strongly agree)
5. The principal in this school is competent in doing his or her job.	1 (strongly disagree) to 6 (strongly agree)
6. The principal tells teachers what is really going on.	1 (strongly disagree) to 6 (strongly agree)

Empirical Test

A final empirical test was conducted to establish initial evidence in determining the potential of PSTPN as a viable leadership practice. To do this, a hypothesized model of leadership effectiveness was advanced whereby PSTPN predicts both teacher organizational commitment and teacher turnover intention. Organizational commitment and teacher turnover intention are two conditions linked to effective leadership and school improvement. It is hypothesized that PSTPN would positively predict teacher organizational commitment and negatively predict teacher turnover intention.

Evidence in support of the effects of PSTPN on teacher organization commitment and teacher turnover intention comes from the psychological needs supporting element of self-determination theory. SDT posits that when relational connections are stronger, motivation for a task is more likely to be internal. Further,

engagement is more likely to increase when individuals experience interactions as supportive of their psychological needs (Deci & Ryan, 2016). Thus, in theory, teachers who perceive their principal as being needs supporting would experience greater internal motivation and increased engagement with their work, which in turn is hypothesized to increased teacher commitment and decrease teacher turnover intention.

It is widely acknowledged that teacher commitment is integral to school effectiveness (Kushman, 1992; Firestone & Pennell, 1993; Ingersoll, 2001). Due to the complex nature of school organizations, it is unreasonable, and even counter-productive, to expect schools leaders to elicit teacher commitment through the use of formal control and strict monitoring of teachers' work. In fact, the literature regarding motivation and commitment has shown that the use of external incentives or formal control has proven to be ineffective towards facilitating long-term meaningful change in individual behavior and well-being (Deci & Ryan, 1985; 2002; Deci, Koestner, & Ryan, 1999; Niemiec & Ryan, 2009; Ryan & Deci, 2000b; Ryan & Brown, 2005). Instead, effective school leaders must work to ignite teachers' intrinsic motivation and voluntary commitment towards efforts aligned to the school's mission and goals.

While historically the teaching profession has been characterized by high levels of intrinsic motivation and commitment (Lortie, 1975; Ingersoll, 2003; Darling-Hammond, 2013, 2014; Watt & Richardson, 2008, 2014), continuing to approach school improvement extrinsically through the use of rewards and/or sanctions could have more unforeseen, long-term negative consequences than positive ones (Ryan & Wwinstein, 2009). In order to affect the quality of instruction and/or to increase teachers' capacity toward school improvement, teachers must be intrinsically motivated

and committed to take charge of their own teaching practice (Ford & Ware, 2016; King, 2004; Spillane & Louise, 2002). Firestone and Pennell (1993) found that teachers with high levels of commitment were also more likely to be intrinsically motivated. Towards this end, empirical evidence would suggest that school leaders who actively support their teachers' psychological needs though their interactions and conversations would foster teachers' intrinsic motivation towards improvement and bolster teacher organizational commitment.

Additionally, evidence abounds when exploring the empirical antecedents of teacher turnover. Not surprisingly, Ingersoll (2001) found teacher turnover to be increasingly common among early-career teachers, negatively correlated with higher salaries, and negatively correlated with favorable working conditions. Further, low-income and low-performing schools have been found to be disproportionately plagued by high levels of teacher turnover. While the psycho-sociological component of organizational commitment has received relatively little attention in educational research, a few studies outside the field have shown organizational commitment to be strongly related to both teacher turnover intention and turnover behavior (Randall, 1990; Somers, 1995; Jaros, 1997; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Riketta, 2005; Morrow, 2011).

In the same way that the perceptions of school leadership have been found to be antecedent of teacher organizational commitment, perceptions of school leadership have also empirically demonstrated as antecedent of teacher turnover. Specifically, the effects of administrative support (Guarino, Santibañez, & Daley, 2006; Kukla-Acevedo, 2009) and teacher mentoring (Darling-Hammond, 2003; Smith & Ingersoll, 2004), both

relational in nature, have been shown to predict teacher turnover. As this study seeks to establish initial evidence in determining the potential of PSTPN as a viable leadership practice, the relationship between PSTPN, teacher organizational commitment, and teacher turnover intention is tested empirically to help confirm or disconfirm the aforementioned hypothesis.

Data for the empirical test come from the same large, urban district in the Southwestern US as was used in the PSTPN validation study; however, sample data used in the final empirical test were collected in the 2016-2017 data collection cycle. The same data collection procedures were utilized in collecting the 2016-2017 data as were employed in the collection of the 2015-2016 data. As in previous years, schools were sampled based on their willingness to participate in a larger research study on school climate and capacity. Parents, students, teachers, and principals were surveyed for the overall research project, but for the purposes of this empirical study, items on the teacher survey were used exclusively. All certified teachers from 74 elementary and secondary schools in the district were sent an individualized electronic teacher survey created in Qualtrics via email. Teachers in the sample averaged approximately 13 years of teaching experience, with an average of a little more than 6 years in their current school. Additionally, approximately 9 percent were nationally board certified, and 80 percent were female (see Table 5).

Table 5. Teacher Demographic Information (2016-2017)

	Mean	SD	Min	Max
Years of Experience	12.98	9.39	1	30
Years in School	6.14	6.25	1	30
National Board	.09	.29	0	1
Female	.80	.40	0	1

Within each school, teachers were randomly assigned to one of two survey forms, with Principal Support of Teacher Psychological Needs, teacher organizational commitment, and teacher turnover intention items all on form A. Participation was voluntary, and teachers were given a two-week window to complete the survey. Overall, 781 usable teacher responses from 74 schools were received from faculty form A, yielding a response rate of 68%. All variables were specified as latent constructs so to include measurement error in the analysis.

Teacher organizational commitment was measured using a seven-item adaptation of the Organizational Commitment Questionnaire (Porter, Steers, Mowday, & Boulian, 1974; Porter, Crampon, & Smith, 1976; Mowday, Steers, & Porter, 1979). The OCQ is one of the most well-known organizational commitment instruments. Because of its popularity, it has been modified extensively over the past four decades. Mowday and colleagues (1979) acknowledge, "the reliability and item analyses suggest that the short form of the OCQ may be an acceptable substitute for the longer scale in situations where questionnaire length is a consideration" (p. 244). The short form of the OCQ uses only the nine positively worded items.

Further, in attempt to avoid confounding the correlation between organizational commitment and turnover intention, a few studies have trimmed commitment items that are redundant with turnover intention items (Reichers, 1985; Chen, 2001; Farh, Tsiu, Xin, & Cheng, 2007). In a similar fashion, this empirical test uses seven positively-worded items from the original OCQ. These seven items were chosen because of their applicability to the school context (with occasional re-phrasing). Additionally, because

teacher turnover intention is also present in the hypothesized model, only seven items were chosen as to avoid redundancy (See Table 6). The organizational commitment measure uses a Likert response set, ranging from Strongly Disagree (coded as 1) to Strongly Agree (coded as 6).

Table 6. Organizational Commitment

Item	Likert Scale
1. I am proud to be part of the faculty of this school.	1 (strongly disagree) to 6 (strongly agree)
2. I often describe myself to others by saying that I work at this school.	1 (strongly disagree) to 6 (strongly agree)
3. I am glad I chose to teach at this school rather than another school.	1 (strongly disagree) to 6 (strongly agree)
4. I am willing to put in a great deal of effort beyond what is normally expected to help this school succeed.	1 (strongly disagree) to 6 (strongly agree)
5. I have warm feelings about this school as a place to work.	1 (strongly disagree) to 6 (strongly agree)
6. I find that my values and the values of this school are similar.	1 (strongly disagree) to 6 (strongly agree)
7. I feel strong loyalty to this school.	1 (strongly disagree) to 6 (strongly agree)

Teacher turnover intention, for the purposes of this study, was measured using three items from a six item scale adapted from Meyer and colleagues' (1993) measure of turnover intention in the nursing profession. The initial measure captured intention to leave the nursing profession by asking participants three items: "how frequently they thought about getting out of nursing, how likely it was that they would explore other career opportunities, and how likely it was that they would leave the nursing profession within the next year" (p. 542). Using this framework, Meyer and colleagues' items were re-worded as job-level turnover intention items and professional-level turnover intention items for the teaching profession. Variation in principal support for teacher

psychological needs exists at the individual level, but is specific to school sites and to interactions and conversations with an individualized site principal. For this reason, only the job-level turnover intention items were used for the empirical test. The scale uses a Likert response set range, with responses on questions one and two ranging from never (coded as 1) to very often (coded as 6), and responses on questions three through six ranging from definitely not (coded as 1) to definitely (coded as 6). For a complete list of the teacher turnover intention items, see Table 7.

Table 7. Teacher Turnover Intention

Item	Likert Scale
1. How frequently do you think about leaving your school?	1 (never) to 6 (very often)
2. How frequently do you think about getting out of teaching?	1 (never) to 6 (very often)
3. How likely is it that you would explore teaching opportunities at other schools?	1 (definitely not) to 6 (definitely)
4. How likely is it that you would explore career opportunities outside of education?	1 (definitely not) to 6 (definitely)
5. How likely is it that you would leave your school in the next year?	1 (definitely not) to 6 (definitely)
6. How likely is it that you would leave the education profession in the next year?	1 (definitely not) to 6 (definitely)

Note. Shaded items = job-level turnover intention items

Chapter 5: Results

Central to the mission of this study is the development of Principal Support of Teacher Psychological Needs as a measurable construct that is both valid and reliable. Results of the various tests for validity provide empirical evidence confirming the validity and reliability of the PSTPN construct and the PSTPN scale. Further, results of the empirical test support the potential of PSTPN as a viable leadership practice as it relates to conditions that facilitate leadership effectiveness and school improvement. In this chapter, empirical evidence of substantive, structural, and convergent validity is reported, substantiating the construct validity of PSTPN.

Substantive Validity

Results from the Rasch measurement analysis of the PSPTN scale provide empirical evidence of substantive validity in the form of person and item fit statistics. Specifically, Rasch item-level analysis, conducted in WINSTEPS 3.80, produced fit statistics of item difficulty (δ) and response predictability, which are displayed as means square infit and outfit values (see Table 8). Items that are more difficult to endorse were given a positive value, and items that are more easily endorsed were assigned a negative value. Because a well-developed scale maintains a wide range of easy to difficult items and an appropriate range of predictability among responses, both item and person fit statistics were assessed to validate response consistencies among participants and to help establish substantive validly of the PSTPN measure. Bond and Fox's (2007) threshold of acceptable predictability (0.60 to 1.40) was utilized to assess response predictability.

As long as item reliability is maintained, parsimony in measurement is to be desired. Thus, by assessing item and person fit statistics, the 15 item PSTPN measure was able to be trimmed to a 9 item measure. Items from the 15 item measure were trimmed for two reasons: 1) they fell close to or outside of Bond and Fox's threshold of appropriate response predictability (PSTPN 1, PSTPN 4, PSTPN 9, PSTPN 11), or 2) the item was redundant and similar to another item (PSTPN 10, PSTPN 15). After trimming, the 9 item PSTPN measure maintained an acceptable range of easy to difficult items (ranging from -.33 – .42). The means square infit and outfit values of the trimmed 9 item measure also signaled an appropriate range of response predictability in that all values fell within Bond & Fox's (2007) threshold (0.60 to 1.40).

Additionally, to further assess internal item consistency and scale reliability, person separation reliability and item reliability for both the 15 item and the 9 item PSTPN measure were reported and compared (see Table 8). Values of person separation reliability and item reliability are similar to values of Cronbach's alpha but are more conservative. After trimming, the 9 item measure maintained strong person separation reliability (.92) and item reliability (.92), both well above Bond and Fox's (2007) threshold of > 0.8. Thus, results of the Rasch measurement analysis provide empirical evidence of the substantive validity of the PSTPN measure by validating item and person level response consistencies. Further, empirical evidence justifying the use of the more parsimonious 9 item PSTPN measure is provided.

Table 8. Rasch Item-Level Information of PSTPN Measure

		15 Item			9 Item		
In reflecting upon my formal and informal interactions and conversations with my principal, I feel he/she…		δ	Infit	Outfit	δ	Infit	Outfit
PSTPN12	is someone I am able to be open with at school	.44	.82	.87	.42	.83	.88
PSTPN15	is honest with me about what is really going on	.31	.87	.90	--	--	--
PSTPN7	explains the rationale behind decisions that are made	.28	1.10	1.12	.24	1.16	1.21
PSTPN9	tries to understand my perspective	.14	.68	.68	--	--	--
PSTPN5	instills confidence in my ability to do my job well	.09	.78	.79	.04	.75	.76
PSTPN8	trusts me to solve problems in the way I see fit	.07	1.10	1.08	.01	1.16	1.09
PSTPN11	is someone I can depend on for support	.07	.77	.76	--	--	--
PSTPN3	provides valuable feedback that helps me improve my teaching	.02	1.03	1.05	-.04	1.22	1.32
PSTPN4	asks questions about my instructional practices that prompt me to think	-.01	1.23	1.33	--	--	--
PSTPN2	celebrates my growth as an educator	-.02	1.01	1.02	-.08	1.09	1.10
PSTPN6	listens to my opinions and ideas	-.05	.89	.83	-.11	.87	.81
PSTPN14	makes me feel like I am part of a team	-.08	.85	.78	-.15	.83	.74
PSTPN13	cares about me as a person	-.25	.99	.94	-.33	.98	.91
PSTPN10	encourages me to be creative with my teaching	-.44	1.06	1.05	--	--	--
PSTPN1	challenges me to set professional goals	-.55	1.46	1.60	--	--	--
	Person Separation Reliability			.94			.92
	Person Real Separation			3.80			3.35
	Item Reliability			.95			.92
	Item Real Separation			4.41			3.40
	Cronbach Alpha			.98			.97

Note. δ = item difficulty; shaded items were trimmed

Structural Validity

Confirmatory Factor Analysis (CFA) in AMOS 23.0 was used to test the factor structure of the PSTPN scale. In doing so, a model generating approach using maximum likelihood estimation was used to establish structural validity. The first step was to build and test the second-order model with each of the three distinct facets of self-determination theory represented. The second step was to build and test a first-order model with all nine items loading on one factor of PSTPN. This second step addresses the argument made by Moss (1995) that "construct validation is most efficiently guided by the test of plausible rival hypotheses" (p. 6-7). In order to evaluate the two

competing models, fit indices, parameter estimates, and residuals were used. The absolute fit index was the Root Mean Square Error of Approximation (RMSEA). Relative fit indices included Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI).

Results confirmed the hypothesized specification of PSTPN as a second-order factor represented by the dimensions of autonomy-support, competence-support, and relatedness-support. The hypothesized structural specification of PSTPN confirms the theoretical specification of PSTPN and is most consistent with what is known about the internal structure of self-determination theory. In comparison, the alternative single factor model yielded a statistically significant Chi-square ($\chi 2$ = 721.89**) and RMSEA of .164, however, the Chi-square for the hypothesized second-order model was also statistically significant ($\chi 2$ = 158.17**) and much smaller. The RMSEA of the hypothesized model was also much smaller (RMSEA = .07), and along with Chi-square indicated a better fitting model (See Figures 3 & 4).

Additionally, the CFI and TLI of the hypothesized model were larger than the alternative model and both above Hu and Bentler's (1999) recommended .95 threshold for a good fitting model (CFI = .99, TLI = .98). Although parameter estimates were strong for both models (statistically significant and above .82), the hypothesized model demonstrates better fit overall (see Figures 3 & 4). Conclusively, by utilizing a comparative analysis, the confirmation of the hypothesized model establishes structural validity by demonstrating an empirical relationship between the sample data and the underlying logic of the model.

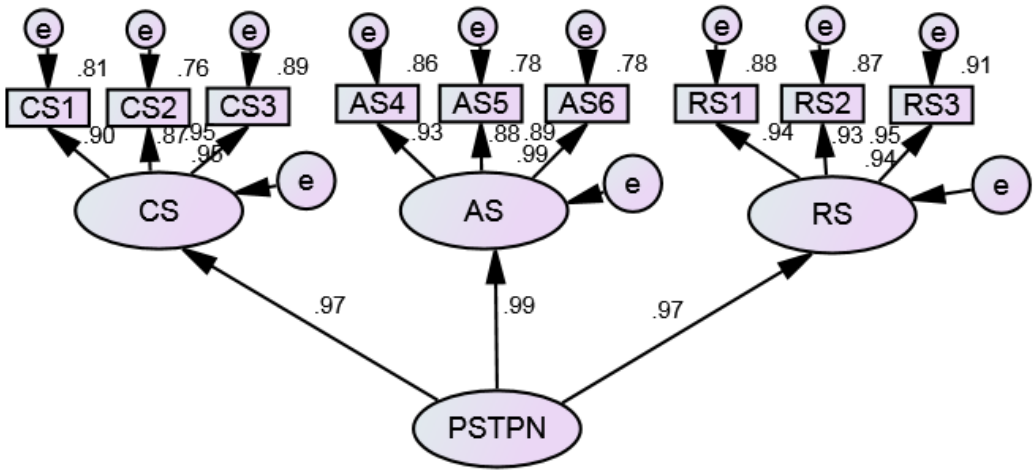

Figure 3. CFA Results for the Hypothesized Second-Order Factor Model. N = 920. DF = 24. Chi-square = 158.17. CFI = .99. TLI = .98. RMSEA = .07. RMSEA 90 percent confidence interval = .06-.08. (**p<.01)**

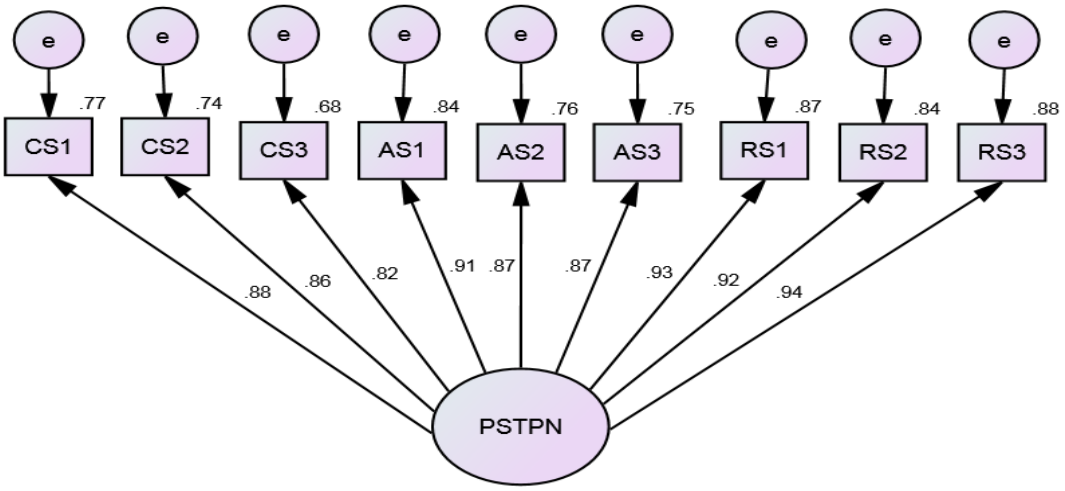

Figure 4. CFA Results for the Alternative First-Order Factor Model. N = 920. DF = 27. Chi-square = 721.89. CFI = .93. TLI = .89. RMSEA = .164. RMSEA 90 Percent Confidence Interval = .15-.17. (**p<.01)**

Convergent Validity

Results of the model testing the relationship between Principal Support of Teacher Psychological Needs and faculty trust in the principal report good model fit (see Figure 5). Chi-square was 654.85 and statistically significant, with RMSEA, CFI,

and TLI all falling within Browne and Cudeck's (1993) threshold of acceptable model fit (RMSEA = .08, CFI = .97, TLI = .96). Factor loadings for the latent constructs were strong, ranging from .64 to .99. As for the correlation result, parameter estimates strongly confirmed the predicted relationship between PSTPN and faculty trust in principal ($\beta = .88$, $p<.01$). Approximately 77% of the variance in faculty trust in principal trust was explained by PSTPN.

Faculty trust in the principal is fundamental to relationship building in that trust undergirds any principal-teacher need-supporting relationship. Thus, the assumed theoretical relationship between faculty trust in the principal and Principal Support of Teacher Psychological Needs is supported by these findings. Together, the strength of the model, the strength of the correlation between the two variables, and the amount of variance explained, provides the empirical evidence to substantiate convergent validity.

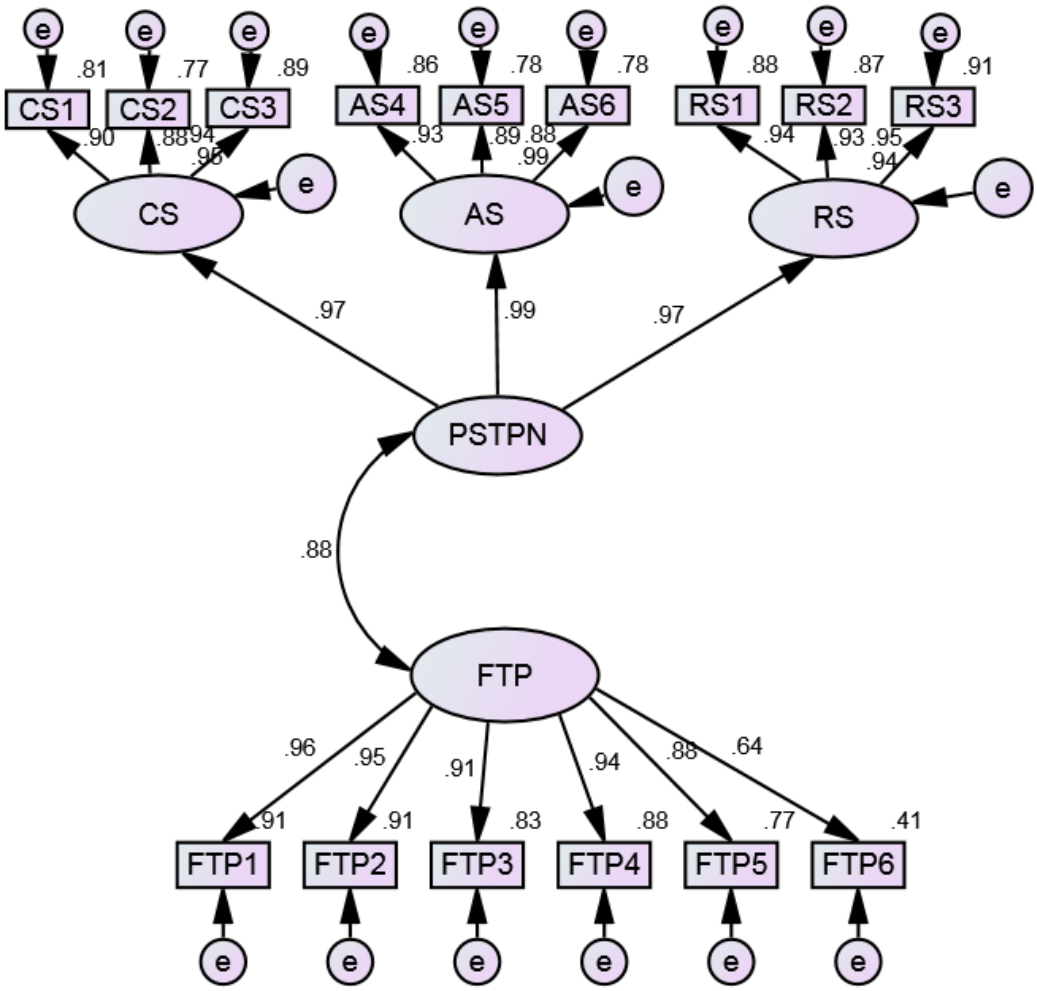

Figure 5. Structural Equation Model Results for the Test of Convergent Validity. N = 920. DF = 86. Chi-square = 654.85. CFI = .97. TLI = .96. RMSEA = .08. RMSEA 90 Percent Confidence Interval = .07-.09. (**p<.01)**

Additionally, tests of within-group variability and between school variability in Principal Support of Teacher Psychological Needs confirm the specification of PSTPN at the individual teacher level. ICCs were calculated to show the amount of variation present at the teacher level and also at the school level. Approximately 86% of the variance in Principal Support of Teacher Psychological Needs was explained at the individual teacher level, leaving around 14% to be explained by school level factors ($p < .001$). ICC results are presented in Table 9.

Table 9. PSTPN IntraClass Correlation Coefficients (2015-2016)

Variable	Variance Within Schools ICC(1)	Variance Between Schools	Chi Square
Principal Support of Teacher Psychological Needs (9 Item)	.86	.14	227.02***

Note. ***p < .001

To conclude, empirical results lend support for specifying Principal Support of Teacher Psychological Needs as a second order factor construct observable in the distinct but interrelated dimensions of self-determination theory. This confirmed structure is supported by the theoretical specification of PSTPN. Further, because a significant amount of the variance in PSTPN is explain within schools at the teacher level (86%), empirical evidence supports the measurement of PSTPN as individual teacher perception of their principal's needs supporting behavior and speech.

Empirical Test

Results of the empirical test report good model fit with CFI (.96), TLI (.95), and RMSEA (.07) all within the threshold acceptable model fit (Browne & Cudeck, 1993). Parameter estimates confirm the hypothesized positive relationship between PSTPN and organizational commitment ($\beta = .64$, $p<.01$), and predicted negative relationship between PSTPN and teacher turnover intention from school ($\beta = -.55$, $p<.01$). Approximately 41% of the variance in organizational commitment and 30% of the variance in turnover intention from school was explained by PSTPN. The full structural equation model results for the empirical test can be seen in Figure 6.

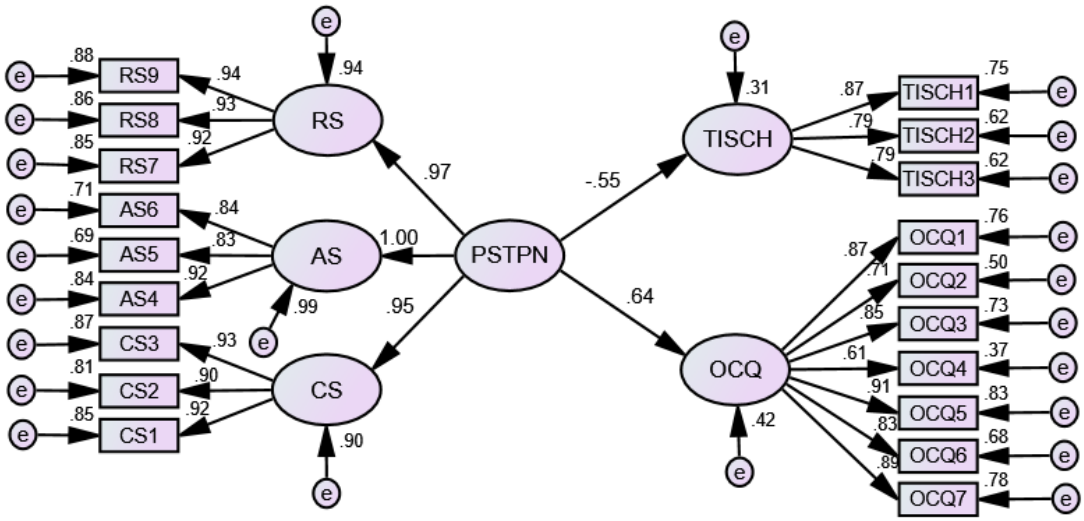

Figure 6. Structural Equation Model Results for the Empirical Test.
N = 781. DF = 147. Chi-square = 771.16. CFI = .96. TLI = .95. RMSEA = .07. RMSEA 90 percent confidence interval = .06-.07. (**p<.01)**

Chapter 6: Discussion

Restatement of Purpose

The purpose of this study was to establish the foundation for a line of inquiry around Principal Support of Teacher Psychological Needs by (1) situating PSTPN within the broader leadership literature, (2) describing the role of conversation as a core and defining component of school leadership, (3) conceptualizing PSTPN by utilizing organizational conversation and self-determination theory, (4) developing PSTPN as a measurable construct, (5) empirically testing the validity and reliability of the PSTPN scale, and finally (6) providing initial evidence of the viability of PSTPN by examining the relationship of PSTPN with conditions that facilitate leader effectiveness.

The research began with the general question: How can principals better support teacher psychological needs? Throughout this study and specifically in this final chapter, the presented solution to this question is addressed and analyzed. In doing so, this study advanced a new construct of intentional school leadership behavior by specifying an underlying theory and mechanism for cultivating effective principal-teacher relationships. By employing self-determination theory and the organizational conversation framework, a type of intentional principal-teacher interaction was advanced, emphasizing the potential of conversations to support teacher psychological needs and activate the inner determination of teachers to excel. In this chapter, the findings, limitations, and conclusions associated with each of the purposes of this study are discussed.

Findings

The central finding of this study suggests that Principal Support of Teacher Psychological Needs can be reliably and validly measured as a construct of teacher perceived principal needs supporting behavior using the trimmed nine item PSTPN measure. While the establishment of construct validity and reliability for any measure is an ongoing empirical endeavor, this initial validation study of the PSTPN measure shows promise and provides strong empirical evidence for the continued confirmation of PSTPN's validity and reliability. To this point, this finding is essential to the development of a line of research around Principal Support of Teacher Psychological Needs in that Schoenfeldt (1984) stresses the importance of sound measurement in the inception of any legitimate research study. "The construction of the measuring devices is perhaps the most important segment of any study…many well-conceived research studies have never seen the light of day because of flawed measures" (Schoenfeldt, 1984, p. 78).

Through the use of deductive item generation (logical partitioning) and the construct validation study, a valid and reliable scale was developed and empirically tested to measure Principal Support of Teacher Psychological Needs. Hinkin (1998) instructs that the development of a well-articulated theoretical foundation is key to successful item generation, and that it is a strong theoretical foundation that indicates the content domain for any new measure. The use of self-determination theory was paramount in the formation of the PTSPN items, which were written to reflect the intentional needs supporting elements of principal-teacher conversations and interactions.

Further, the construct validation study examined and confirmed the content, substantive, structural, and convergent validity of the PSTPN measure. By definition, construct validity is the ability of a measure to yield truthful judgments about the object it purports to measure (Messick, 1989, 1995; Miller, 2008). Thus, by applying the tenants of self-determination theory to intentional principal-teacher social interactions, namely conversations, the findings confirm the nine item PSTPN measure to be both a valid and reliable measure of teacher perceived principal needs supporting behavior. As such, PSTPN is understood to be a global measure of the degree to which teachers experience their interactions and conversations with their principal as being needs supporting. These findings support both the fourth and fifth purposes of the study. Moving forward, the continued confirmation of PSTPN as a valid and reliable measure legitimizes further empirical research on the subject.

To this point, the study helped to establish initial evidence of PSTPN as a viable leadership practice though the interpretation of the findings presented in the final empirical test. The empirical test confirmed both the hypothesized positive relationship between PSTPN and organizational commitment and the hypothesized negative relationship between PSTPN and teacher turnover intention from school. These findings appear in part to confirm Sheppard's (1996) study, where teacher commitment, professional involvement, and willingness to innovate all increased when teachers perceived their principals' instructional leadership behaviors to be appropriate. This initial evidence of the potential and viability of PSTPN as a legitimate school leadership practice is quite compelling, and suggests the need for further empirical research on the subject.

Applying the evidence from the empirical test as well as the evidence from theory established in the literature review, this study establishes PSTPN as a clear and distinct mechanism of school leadership influence; one that has the potential to deepen our understanding of how intentional conversation can be better utilized as a leadership practice for school administrators towards developing stronger principal-teacher relationships. Towards this end, the foundation for the significance of PSTPN was first laid by situating the construct within the broader leadership literature and then by positioning PSTPN uniquely within established school leadership theory.

First, in the analysis of the two general approaches of school leadership, the findings of this study support Robinson, Lloyd, and Rowe's (2008) argument that relationships and people skills are embedded in every dimension of leadership. Historically, a long line of evidence separates the general approaches of school leadership into two categories (Evenson, 1959; Halpin, 1959; 1966; Halpin & Croft, 1962; Brown & Anderson, 1967; Kunz & Hoy, 1976)—the process of leading through tasks, structure, and organization (systems orientation) and the process of leading through relationships and people (people orientation). This study confirms the belief that principals cannot separate the task responsibilities from the relationships that determine how tasks are carried out. Further, PSTPN reinforces the common understanding that principals fundamentally work through teachers to accomplish the outcomes of schooling (Hallinger & Heck, 1996). Along this line, this study helps continue to establish school leadership as generally a relational process and to articulate concretely the work of the principal as interpersonal behavior.

Yet, the importance of teachers in accomplishing the outcomes of schooling does not diminish the role of the principal; rather it accentuates its importance, validating the significance of this study and the effectiveness of strong principal-teacher relationships. To analyze the effects of school leadership on school outcomes, this study explored school leadership through four main lenses: transformational leadership, shared-instructional leadership, leadership dimensions, and leadership pathways. Though this analysis, the findings of this study help to position PSTPN uniquely within established school leadership theory.

In particular, through identifying the gaps between theory and practice in these prominent school leadership conceptualizations, this study and the advancement of PSTPN provides a missing link capable of strengthening the effectiveness of pre-existing school leadership models. Specifically, PSTPN has the capability to help bridge the gap between effective transformational leadership and shared-instructional leadership. Developing the potential of these two school leadership theories is of particular interest in that they are without a doubt the most empirically tested and developed models within school leadership research (Hallinger, 1992; Marks & Printy, 2003; Robinson, Lloyd, & Rowe, 2008).

In their revolutionary study, Marks and Printy (2003) argue that an integrated form of transformational and shared-instructional leadership provides the most substantial effect on school performance. Whereas they suggest that transformational leadership is a prerequisite to shared-instructional leadership, they explicitly point out that shared-instructional leadership will not be developed "unless it is intentionally sought and fostered" (Marks & Printy, 2003, p. 392). While Marks and Printy's (2003)

findings clearly advance the importance of strong principal leadership in supporting the commitment of teachers, their research lacks a clearly specified mechanism or method toward intentionally supporting teacher needs and/or fostering effective principal-teacher relationships.

In response to this limitation, Principal Support of Teacher Psychological Needs provides not only a clear mechanism of leadership influence capable of developing strong principal-teacher relationships, but also PSTPN utilizes social-psychological theory (self-determination theory) to explain how the actions and/or behaviors of school leaders might effectively influence teacher well-being, motivation, and development. Many studies have identified specific types of school leadership and their corresponding effects on school effectiveness and student achievement (Conley & Goldman, 1994; Leithwood, 1994; Blase & Blase, 1999; Halliger, 2003; Leithwood & Jantzi, 2005; Leithwood & Sun, 2012), however this study's use of self-determination theory sets it apart from other studies in that it provides theoretical explanation into how exactly intentional leadership behavior might promote teacher motivation toward enhanced performance. Thus, the development of PSTPN supports Leithwood and colleagues (2010) critique of similar literature: "Such approaches to the identification of powerful leadership mediators provide little guidance to practicing leaders who, just like researchers, are in the business of deciding where best to focus their efforts" (p. 673). Without a specified mechanism through which school leaders can motivate and exercise their influence in relationship with teachers, the principles of transformational leadership, instructional leadership, leadership dimensions, leadership pathways, and

other school leadership conceptualizations are less effective and useful to school practitioners.

Limitations

When discussing the second and third purposes of this study, it is important to acknowledge the limitations associated with this study as well as additional implications for further research. The second purpose of this study was to describe the role of conversation as a core and defining component of school leadership. Central to this purpose is the examination of the utility of conversation in the day-to-day work of school leaders. In attempt to better meet teachers' psychological needs, it is argued in this study that conversation is instrumental to the practice of school leadership towards influencing and motivating teachers. In one of the few empirical articles that explores a similar notion, Lowenhaupt (2014) argues that language, and therefore conversation, should not be viewed simply as an accessory or aid to practice, but rather a core and defining component of the leadership practice of school administrators. Thus, in the development of PSTPN as a viable leadership practice, one major objective is to provide school leaders with specific needs supporting language to use in framing their conversations with teachers.

Though the intentional use of language associated with self-determination theory, this study begins to familiarize school leaders with competence-supporting, autonomy-supporting, and relatedness supporting language. Due to the lack of empirical evidence concerning the potential of needs supportive principal-teacher conversations, this contribution is original to this study and has the potential to be one of the greatest contributions of PSTPN to the field of educational leadership. Yet, the predominant

empirical focus of this is study is on establishing a valid and reliable measure of PSTPN. While this is the primary contribution, and a logical first step towards establishing a line of research around PSTPN, it is also a limitation of the study and implies a significant opportunity for further research.

This contribution and implication for further research addresses the third purpose of the study—conceptualizing PSTPN by utilizing organizational conversation and self-determination theory. In measurement development, Hinkin (1998) argues for a strong theoretical foundation to inform the content domain for any new measure. In the development and conceptualization of PSTPN, the use of Deci and Ryan's (2002) self-determination theory and Groysberg and Slind's (2012) organizational conversation framework sets PSTPN apart from other constructs of leadership behavior, which tend to concern themselves with the structural and regulatory aspects of organizational life. In contrast, PSTPN emphasizes the relational aspect of organizational leadership, which this study argues cannot be underestimated. The intentional focus of organizational conversation advances the elements of conversation which have consequence for promoting a culture of psychological needs support, and SDT provides the theoretical lens through which the needs supporting function of conversation can be explained.

Because there are very few studies within the educational leadership corpus that specifically apply self-determination theory (or any social psychological theory at that) to examine and explain generative leadership behaviors and processes (Eyal & Roth, 2011 and Ford & Ware, 2016 being the only exceptions), one major contribution of this study is its unique use of SDT. In effort to better explain how school leaders can influence teachers in catalyzing and accomplishing the work of effective schooling, this

study advances the literature by using self-determination theory to explain the potential of PSTPN in the promotion of teacher personal and professional well-being, motivation, and development.

While the initial findings of this study are promising and suggest PSTPN to be instrumental in developing teacher personal and professional well-being, motivation, and development towards increase teacher commitment and decreased teacher turnover, the study is limited in is explanation of how to effectively develop a principal's PSTPN knowledge, skills and behavior. This limitation provides tremendous opportunity for further research and could greatly inform principal practice and principal preparation programs. In order to be most effective for practice, more empirical research is necessary to better understand what exactly needs supporting principals should say and do in their interactions and conversations with their teachers. PSTPN gives an initial guide, and shows that principal needs supporting behavior and speech is important to teachers, however the question of how to best develop and coach principals to be needs supporting remains.

Further, PSTPN is a global measure of teacher perception at one point in time, and captures only a single year of data. This singular capture of data presents another limitation to this study. It is likely that teacher perceptions of their principal's needs supporting behavior and speech could change over the course of a school year, and this study would be enhanced by multiple time points or years of longitudinal PSTPN data. However, to help account for this limitation, data were intentionally collected towards the middle of the second semester of the school-year in order to benefit teachers in forming a global perception of their interactions and conversations with their principal.

Still, the absence of multiple years of data and the cross-sectional nature of this study limit the establishment of causation among the variables of interest in the empirical test. Further, the study conducted was not a randomized, controlled trial. Despite these limitations, however, the interpretation of correlations from survey data still constitutes empirical evidence. This is particularly true, as in the case of this study, since a strong theoretical foundation was laid in the review of literature and conceptual framework toward the structural design of the hypothesized models and hypothesized relationships among the variables in the empirical test. Nonetheless, further replication of these results with additional populations and data sets would make a stronger case for the correlations and relationships found in empirical test as well as the validity and reliability of the PSTPN measure as a whole.

To this point, data used in this study are drawn exclusively from a single urban district in the Southwestern United States. In recent years, both this district and the state, have suffered from chronic teacher shortages and high teacher turnover. This limitation urges caution with respect to the generalizability of the findings to other educational contexts, such as rural districts, suburban districts, or private schools, where both teacher and leader turnover might be lower. As mentioned previously, the validation study would benefit from the replication of the study with alternative populations and sets of data.

Conclusion

Despite the limitations, this study effectively accomplishes its stated purposes and helps establish a firm foundation for a line of inquiry around Principal Support of Teacher Psychological Needs. By responding to a gap in the literature, this study

specifies a clear, underlying theory and mechanism for cultivating effective principal-teacher relationships toward influencing teacher personal and professional well-being, motivation, and performance. In doing so, the study provides a valid and reliable way to measure PSTPN as a new construct of intentional school leadership behavior to be used in further empirical analysis.

Teaching is complex work and schools are complex organizations, and the examined literature confirms that effective school leadership is an interactive, cooperative process requiring an intentional focus on teachers, the organizations' agents of change (Barnard, 1938; Kotter, 1987; Van Maele et al., 2014; Forsyth et al., 2011). This cooperative process underscores the significance of the principal-teacher interaction. Yet, due to the rising amount of public and political pressure on school leaders to increase student performance, many educational leadership studies continue to focus exclusively on the effects of school leaders on student learning and achievement outcomes (Leithwood & Jantzi, 1999; Witziers, Bosker, & Kruger, 2003; Halligner & Heck, 1998; Hallinger, 2003) while failing to address the important relational link between principals and teachers in achieving these outcomes. Through the development of PSTPN, this study advances the literature by providing empirical and theoretical evidence to the importance of principal-teacher relationships and interactions.

In the wake of "high stakes" educational improvement initiatives, such as *No Child Left Behind* (NCLB) and *Race to the Top*, the idea of schools as cooperative systems of organization seems to have been lost. Instead of placing cooperation at the center of effective human organization, schools today are forced to focus heavily on

student performance outcomes and value-added metrics (Van Maele, Forsyth, & Van Houtte, 2014). Despite research revealing the failures and limitations of this narrow, outcome-driven approach, high stakes school accountability is continually imposed on teachers and school leaders by educational policy established by state and local governments (Darling-Hammond, 2004; Fullan, 2010; Baker et al., 2010; Heck, 2000; Ravitch, 2011). However, instead of bolstering principal-teacher cooperation and fostering relational health between the two parties, there is growing evidence that the use of high-stakes teacher evaluation systems could have unforeseen negative consequences on teacher self-efficacy, cooperation, satisfaction, and professional commitment (Kappler-Hewitt, 2015; Ford, Van Sickle, Clark, Fazio-Brunson, & Schween, 2015; Ford & Ware, 2016).

Thus, the attempt is made in this study to shift the focus of educational research towards identifying significant leadership mediators which explain more definitively how school leaders exercise their influence through teachers in accomplishing the outcomes of schooling. Lortie (2009) argues that the ability of a leader to influence or persuade emerges through interactions that appeal to the values, needs, motivations, and beliefs of the individuals charged with making the organization functional through requisite routines and actions. In effort to better explain how school leaders can influence teachers in accomplishing the work of schooling, this study advances the literature by using self-determination theory to explain the potential of PSTPN in the promotion of teacher personal and professional well-being, motivation, and development.

Through the identification of intentional objects of empowering leadership conversations, the use of self-determination theory in the conceptualization of Principal Support of Teacher Psychological Needs provides a theoretical lens to better explain how conversations between principals and teachers, both formal and informal, can function as a mechanism to better support teacher psychological needs, enhance principal-teacher relationships, and influence teacher motivation and development. In doing so, this study suggests that principals who better support their teachers' psychological needs would experience stronger relationship with their teachers, igniting higher levels of teacher motivation and fostering teacher development. Further, the findings suggest that when teachers' psychological needs are met, they would experience well-being, activating higher levels of teacher commitment and would be more likely to stay working at their school site. Ultimately, as further empirical evidence is collected exploring the potential of Principal Support of Teacher Psychological Needs, it is hoped that meeting teachers' psychological needs could have a long-term effect on student learning as well as other important school outcomes characteristic of effective schooling.

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Appendix A: PSTPN Logic Model